GTCGACCCACGCGTCCGCCCACGCGTCCGGCCC ATG GCG CCC GCC GCC CGC CTC GCC CTC GCC CTC 66 T P P Α Α R Α S G 31 TCC GCC GCG GCG CTC ACG CTG GCG GCC CGG CCC GCG CCT AGC CCC GGC CTC GGC CCC GGA 126 F Y Т Α N G A٠ D R G Q N W ጥ - 51 CCC GAG TGT TTC ACA GCC AAT GGT GCG GAT TAT AGG GGA ACA CAG AAC TGG ACA GCA CTA 186 Р C. F Ε Q , H K L W N T F P Y L 71 CAA GGC GGG AAG CCA TGT CTG TTT TGG AAC GAG ACT TTC CAG CAT CCA TAC AAC ACT CTG 246 G E Ε G G L G N C R 91 AAA TAC CCC AAC GGG GAG GGC CTG GGT GAG CAC AAC TAT TGC AGA AAT CCA GAT GGA 306 V Α Ε Η Ε D. G Y .. Y 111 GAC GTG AGC CCC TGG TGC TAT GTG GCA GAG CAC GAG GAT GGT GTC TAC TGG AAG TAC TGT 366 M G N 131 L G C Y D Ħ K G GAG ATA CCT GCT TGC CAG ATG CCT GGA AAC CTT GGC TGC TAC AAG GAT CAT GGA AAC CCA 426 S K T S ጥ Ν K 151 CT CCT CTA ACT GGC ACC AGT AAA ACG TCC AAC AAA CTC ACC ATA CAA ACT TGC ATC AGT 486 F K F Q R Α G M E S G Y 171 TTT TGT CGG AGT CAG AGG TTC AAG TTT GCT GGG ATG GAG TCA GGC TAT GCT TGC TTC TGT 546 W K N Р D Y Y G E · A Т E C 191 Α S N GGA AAC AAT CCT GAT TAC TGG AAG TAC GGG GAG GCC AGT ACC GAA TGC AAC AGC GTC 606 C Ρ G G D G R I I 211 FIGC TTC GGG GAT CAC ACC CAA CCC TGT GGT GGC GAT GGC AGG ATC ATC CTC TTT GAT ACT 666 Ν Y 231 Α LETC GTG GGC GCC TGC GGT GGG AAC TAC TCA GCC ATG TCT TCT GTG GTC TAT TCC CCT GAC 726 T G R V C Y W Т 251 Α Т R TTC CCC GAC ACC TAT GCC ACG GGG AGG GTC TGC TAC TGG ACC ATC CGG GTT CCG GGG GCC 786 H F S F Р F D I D 271 L R S E Α M FCC CAC ATC CAC TTC AGC TTC CCC CTA TTT GAC ATC AGG GAC TCG GCG GAC ATG GTG GAG 846 G Y H R V R 291 L.A H CTT CTG GAT GGC TAC ACC CAC CGT GTC CTA GCC CGC TTC CAC GGG AGG AGC CGC CCA CCT 906 S L D F V Y F F S I L D R Τ 311 N CTG TCC TTC AAC GTC TCT CTG GAC TTC GTC ATC TTG TAT TTC TTC TCT GAT CGC 966 Y L K Ε 331 CAG GCC CAG GGA TTT GCT GTT TTA TAC CAA GCC GTC AAG GAA GAA CTG CCA CAG GAG AGG 1026 V Α Ε V I Ε CCC GCT GTC AAC CAG ACG GTG GCC GAG GTG ATC ACG GAG CAG GCC AAC CTC AGT GTC AGC 1086 Т K V Y V I ·T P L S Н 371 GCT GCC CGG TCC TAC AAA GTC CTC TAT GTC ATC ACC AGC CCC AGC CAC CCA CCT CAG S W P N Α P M G Α G S H R A, Ε 391 ACT GTC CCA GGT AGC AAT TCC TGG GCG CCA CCC ATG GGG GCT GGA AGC CAC AGA GTT GAA 1206 ľ G Y G L T 411

| GGA | TGG | ACA | GTC | TAT | GGT | CTG | GCA | ACT | CTC | CTC | ATC | CŢĊ | ACA | GTC | ACA | GCC | ATT | GTA | GCA | 1266 |
|----------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|-------------|
| | | | | | | | | | | | | GTT V | | | | | | | | 431 1326 |
| | | | | | | | | | | | | S AGC | | | | | | | | 451 1386 |
| | | | | | | | | | | | | | | | | | | | | 471 1446 |
| L CTT | y G T G | | _ | | | | | | | | | | | • | | | - | | | |

AAACCCCACTGTGCCTAGGACTTGAGGTCCCTCTTTGAGCTCAAGGCTGCCGTGGTCAACCTCTCCTGTGGTTCTTCTC

TGACAGACTCTTCCCTCCTCTCCCTCTGCCTCGGCCTCTTCGGGGAAACCCTCCTCCTACAGACTAGGAAGAGGCACC

TGCTGCCAGGGCAGGCAGAGCCTGGATTCCTCCTGCTT

1657

Fig-1B

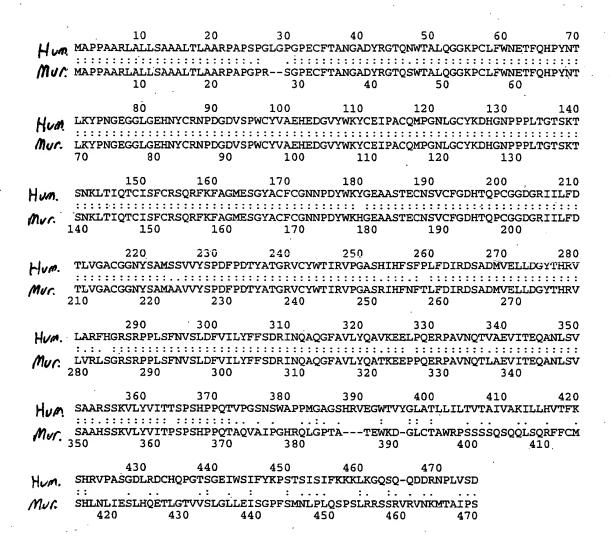
Fig. 1C

GTCGACCCACGCGTCCCGGTGCTGCCCCCTCTGCCCCGGGGCCCCGGGGGTCCCGCACTGACGGCC 79 P P Α Α R Ľ Α L L S Α Α Α L 19 137 G Ρ R S G P Ε C F T \mathbf{N} . \mathbf{G} Α 39 GCC CGG CCC GCG CCC CGC TCC CGC CCC GAG TGC TTC ACA GCC AAC GGT GCA GAT 197 Y R G ጥ Q S W ጥ p Α L Q G G K C $\cdot \mathbf{L}$ 59 TAC AGG GGA ACA CAG AGC TGG ACA GCG CTG CAA GGT GGG AAG CCA TGT CTG TTC TGG AAC 257 Η P Y N Т Y Ρ G L K N Ε G G G 79 GAG ACT TTC CAG CAT CCG TAC AAC ACG CTG AAG TAC CCC AAC GGG GAA GGA GGA CTG GGC 317 С P Y R Ν D G V D S P W C Y 99 GAG CAC AAT TAT TGC AGA AAT CCA GAT GGA GAC GTG AGC CCT TGG TGC TAC GTG GCC GAG 377 H D G V Y K Y C Te? Ε Ι P C Q P Ą M G M 119 CAT GAG GAC GGA GTC TAC TGG AAG TAC TGT GAA ATT CCT GCC TGC CAG ATG CCT GGA AAC 437 $\mathbf{p} \cdot \mathbf{p}$ Υ. K Ď Н G Ρ N L ጥ G Т S K S 139 GGC TGC TAC AAG GAT CAT GGA AAC CCA CCT CCT CTC ACG GGC ACC AGT AAA ACC TCT С s F С R. S 0 R 159 AAG CTC ACC ATA CAA ACC TGT ATC AGC TTC TGT CGG AGT CAG AGA TTC AAG TTT GCT 557 G Y Α $C \cdot F$ С G N N P D Y 179 ATG GAG TCA GGC TAT GCC TGC TTC TGT GGG AAC AAT CCT GAC TAC TGG AAG CAC GGG 617 Т Ε С N S V F ·P С G D Η Т Q 199 GCG GCC AGC ACC GAG TGC AAT AGT GTC TGC TTC GGG GAC CAC ACG CAG CCC TGC GGT 677 9 D G R I I F Т L D L V С Y S G Α G G N 219 GGG GAC GGC AGG ATT ATC CTC TTT GAC ACT CTC GTG GGC GCC TGC GGT GGG AAC TAC TCA 737 Ų Α V Y S P D F Ρ D Т Y ጥ - G V 239 Α ATG GCA GCC GTG GTG TAC TCC CCT GAC TTC CCT GAC ACC TAC GCC ACT GGC AGA GTC 797 G Α S R Ι 259 Н TGC TAC TGG ACC ATC CGG GTT CCA GGA GCC TCT CGC ATC CAT TTC AAC TTC ACC CTG TTT 857 D Ι R D Α D $\mathbf{M} = -\mathbf{\Lambda}$ Ε L L D G Y \mathbf{T} H R L 279 ATC AGG GAC TCT GCA GAC ATG GTG GAG CTG CTG GAC GGC TAC ACC CAC CGC GTC CTG 917 V. S G R S R P P 299 L S F N S L GTC CGG CTC AGT GGG AGG AGC CGC CCG CCT CTG TCT TTC AAT GTC TCT CTG GAT TTT GTC 977 Ι Y F S D R I N Q Α - Q G F Α 319 TTG TAT TTC TTC TCT GAT CGC ATC AAT CAG GCC CAG GGA TTT GCT GTG TTG TAC CAA 1037 0 Ε \mathbf{R}^{\cdot} Р V Ν Т Ε V 339 Α 0 L Α ACC AAG GAG GAA CCG CCA CAG GAG AGA CCT GCT GTC AAC CAG ACC CTG GCA GAG GTG 1097 Ι Т N S V S A · A · H S S K V L Y V 359

Fig. ID

| ATC | ACC | GAG | CAA | GCC | AAC | CTC | AGT | GTC | AGC | GCT | GCC | CAC | TCC | TCC | AAA | GTC | CTC | TAT | GTC | 1157 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|-----------|----------|---------------|-----------|----------|----------|----------|----------|----------|-------------|
| I ATC | T ACC | P CCC | S AGC | P CCC | S AGC | H CAC | P CCT | P CCG | Q CAG | T ACT | A GCC | Q CAG | V GTA | A GCC | I ATT | P CCT | G GGG | H CAC | R CGT | 379 1217 |
| Q CAG | L TTG | G GGG | P CCA | T ACA | A GCC | T ACA | E GAG | W TGG | K AAG | D GAT | G GGA | L CTG | C TGT | T ACG | A GCC | W TGG | R CGA | P | S | 399 1277 |
| S TCA | S TCC | S TCA | Q CAG | S TCA | Q CAG | Q CAG | L TTG | S TCG | Q CAA | R AGA | F. TTC | F TTC | C TGC | M ATG | S TCA | H CAT | L TTA | N AAT | L CTC | 419 1337 |
| I ATC | E GAG | S TCC | L CTG | H CAT | Q CAG | E GAG | T ACC | L TTA | G GGG | T ACT | V GTC | V GTC | S AGC | L' CTG | G GGG | L CTT | L CTG | E GAG | I ATA | 439 1397 |
| S TCT | G GGA | P CCA | F TTT | S TCT | M ATG | N AAC | L CTT | P CCA | L CTA | Q CAA | S TCT | P CCA | S TCT | L TTA | R AGA | R AGA | S AGC | S | R AGG | 459 1457 |
| V GTC | R AGA | V GTC | N AAC | K AAG | M ATG | T AČC | A GCA | I ATC | P CCC | S TCG | * TGA | | | | | | | .• | | 471 1493 |
| GTGA | CTG | ¥AGC(| CACC | SCCTO | GCAT(| GAGA | SGCT(| cccc | rcca: | رت AGCT(| Egag: | rttg | CTCG | CTG | AGTTO | CTCC | PCTG! | ATGA | GTTC | 1572 |
| CC.E | CCTT | rccc2 | ATTC | ACCA | CCAT | CTCT | rttgo | GAG | CACC | CTGC' | TTTAC | GAGG | CAGC | CCAG | CCTG | GGAT | CCTC | CAŢC. | ACAT | 1651 |
| GTAC | CAGO | CTG | GCTGC | CTCT | GCTG | GGGA' | rggti | AAGA | CAGG | CCCA | GGCT | GACA | GAC | ACAG | CTGG | ACCT | GACT | CCAG | AAGA | 1730 |
| CTCT | TGGC | TGG | rggg | GAGG' | TATA | STGT | AGGA | rgag: | PTTT(| CTTG | CTTC | TTCT | CTGT | rttg' | rcca | CATA | CAGA' | rcggʻ | TTTC | 1809 |
| cde | GTC | ATT1 | CAGT | rtgc2 | AATA | GAGC | CAGA | CTGA | AAGA | ACTG' | TCAG | GTTT' | rcta(| GCT | GGCC: | rggt' | rccc | CACT | AAGA | 1888 |
| GIG | CAT | rggco | GCCC: | TAGA | GGCC | CAGA | GCC | CAGTO | STAG | GCTT | GGAG | CTTT | CTCT | GCTG(| CCAA | CTAC | CATG' | IGTC. | ATCT | 1967 |
| AGT | CCGAC | GGGZ | ACTG2 | AGAG | CAGG | GCCA | CACC | AGATO | GTCA' | TCTT' | TCTA | GAGG | GTTC | rttt | TAGT | ACCC | ACTG | ACCA | ATGG | 2046 |
| GGC2 | AGC | CTGAG | GAT' | rggt(| CCAT | CTGT' | rtgt | CCAT | GAA(| CAGA | CACA | GTGA | ACTT | CCTG | GATA | CTAG | ACTT | AACT. | AGCC | 2125 |
| TAĞ | CCT | CAAG | ragt' | rgcc | AATC | CTGT | GGAA' | rcag2 | AATT | CAGC | CTGT | CTTC | CTGT | CCTC | AGCC | CAAG | CCTG' | TAGC | CTAG | 2204 |
| AGC | rggg | GCTG: | ragco | CTAG | AGCT | GGGG | CTGT | AGCC' | raga | GCTG | GGGC | TGTA | GCAC | AGAG | CTGG | GGCT | GTAG | CCTA | GAGC | 2283 |
| TGG | GCT | STAG | CACA | GAGC' | TGGG | GCTG' | TAGC | CTAG | AGCT | GGGG | CTGT | AGCA | CAGA | GCTG | GGGC' | TGTA | GCAC | AGAG | CTGG | 2362 |
| GGC? | CTAC | SCCT | AGAG | CTGG | GGCT | GTAG | CACA | GAGC' | rggg | GCTG' | TAAC' | TCAG | CGAT | CAAG. | AGCT' | TGCT | TTGT. | ATAC. | ATCG | 2441 |
| GAC | CTA | GTT | CTAT | CCCA | GCAC' | TATC | AGAA | GGTG | GGAG. | AGAA. | AAAG | ACTG | CACC | ATAG | CATG | CGGG | CAGC. | ATCT | GTGG | 2520 |
| TTC | CTAC | STGA | GTG' | TCAT | CATT | TTAA | AAGC | AGAT | CAAA | ACTA | CCGC | GAGT" | TTTGʻ | rcct | TTGT | CCCT | TATC. | ATGG | GAGC | 2599 |
| AGAC | STAGO | GAGT | AAGG | GCTC' | TGGT | CTTG | CTCA' | TTGT | CCCC | CAGA | CAGG | GAGG | CAGG. | AAAA | GGTC | AGGC | TTGG | GAAC | TGGA | 2678 |
| GAT | CCTC | CCAG | GAAA | AGCT(| GCAA | GATT | GAGA | GACC | CAGC | TGCA | GTTG | GGAG. | AGGA. | AGGG | CCAT | cccc | GACT | GAGA | AGTC | 2757 |
| CTG | CAGT | CTGG | AAGT(| GGCC' | TTTG | TCAG | CAGC | AGCT | GTGC | CCTG | AAGG' | TAGA | CCTT | GGTC | ACTC' | TCCT | GCCA | GCCC | TTGA | 2836 |
| GCC | rctg | CTCT | CCTG | GGTA | CCCT | CCTG | GAAC | ACCA' | IGCT. | AACC | TTCC | CCGA | G T CT | CTCA | GTCA | CTGC | CATT | GAGG | CCTC | 2915 |
| TCC | CTA | GCTG | CTGC' | TCCC | CAGG | ACTG | TCTG | GGGC | CATC | TGGG | GATC. | AGGG. | AGAG | GCAG | CAGG. | ĄGTA | CTGA | CGAG | GCAG | 2994 |

3073 TACAGGGGTACTAAGCTAGGGGGTCATCATCTCATTTGATCTGGGAAAGGCTACAGGCTCCTGGATGTGAAGACAGGCC 3152 CACTACATAAGAAGACCACTGGAAATAGACTGACAGGAGCAGGTTCCACTCTAGGCTGTCCATAGCGTTTGCAGGACTC 3231 CCCTGAGACCAAGTGTTGAGTCACAGAGTGCCATGTGCGTAGTGCATAAAGGATATGGGTTCTTAACCAGGGAAGGCTC 3310 ATAGCAGGCCAGGACATTTTTTCAGCTCAGAGCACTGGCCCCAGGCTTCCTCTAAGCCACCACTCACCTGTCTCTTCCT 3389 ATCTCGGACACAGGAAGCAAGCCCCAGTGTGGTGGCAGCTGCGGCTCAGCATTGGTGTCCCCAGGAAGGGCGGTGGATG 3468 TGCCCACGCTCCTTTTGCTGTGGGCCTGGCACAGCCCAACACTGCAGGGCCCACCTTCTCTCTTTGGGGGGTAGGGACAC 3547 3626 3705 3784 TCCTGTCACACTGCTTACAAAGCAGAGACAGAGTAGGAAAGAGGTCTTCATCCTCTCCCACATCAGCAAGGATAGGGCT 3863 GCGGCTGCCTAAAGTGAGCAAGGAGAACAGAGCTCTGGACTTCTCTAAATGTGGGCTCTGGCTTCAGACTCCTCAGCCA 3942 AÄÄGCTCTTGAAGATCAAAGCTCTGGCGGGTACAGCTGTCCTGGCCTGTGGGCCAGCCCATGGGATGTGCCTGGGCCAG 4021 GTGCCACCCACGGCTCACTGTCATCCCAGGAGGGACCCCACCTGATGCTCCTCATCATCCGCTGGCCTGACACTATCA 4100 GASCTCGCGCCGGCTGTTGCCAGGGACAGACTGACTACACTTGACCTTCAAGAGCACTTAGAAGTGGATGGCCTCCAGA 4179 CŤĊTGTCAGCCTCTGCAGGGGCCACACAAGTCTCCCGAGCCAAGTCCACAAGCCTCCATGGTTCCCTGGCTCCTCTCCT 4258 G##GAGTGTCCTGTTTGATGTCTGAGGTCTGCTTTGGGTACCGCCCTGGGAACTGCTAACCTCCGATTGGTCCCTTTGT 4337 4416 GGCTGCACCCCACCTGGTCTGCCAACAGAACCTGGGGGCCTCACACGGGCTCCTGTCTTGCCAAGCTGGAGCTGAGC 4495 4574 AGATCCAGCGAGGGAGCTGCCATCCCGCCACCTTCATAGCAGCAAGACCTTCCCATTTCCAATCTCACCCTCCAGCAG 4653 GGATATGACTTTGGACAACAAGGCTTTATTTGTAAATATGCTCTTAATATGCAACTTTGAGAATAAGATAGAAACATCA 4732 TGTATTTTAAAATATAAAATGAAGTGTGACACACTGTATACAATTTAATATATTTTTTTAGGATTTTGTTATTTAAGAA 4811 4890 TTGTTGTAGAAAAAAAAAAAAAAAAAAAGGGCGGCCGC 4928



ΙĒ

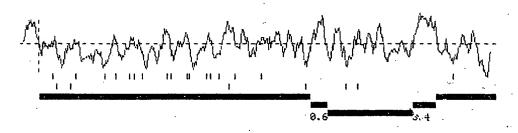
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Fig. IF



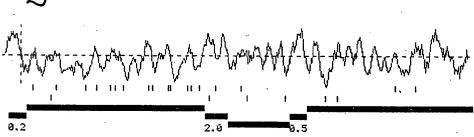
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Cys Nely out Th



1 41 81 121 161 201 241 281 321 361 401 441





1 41 81 121 161 201 241 281 321 361 401 441

Fig. 2A

| GCG | GCCG(| , CTCG(| CGAT | CTAG2 | ACT | AGTA | | | L CTG | | | | | | H CAT | I ATT | | F TTT | G GGA | 13 66 |
|-----------|----------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|----------|-----------|-----------|----------|----------|-------------|
| R AGA | C TGC | C TGC | _ | H CAT | Q CAG | | L CTT | F TTC | S TCT | | V GTG | | | | I ATC | L CTG | L CTC | L CTG | N AAT | 33 126 |
| S. TCC | C TGC | | L CTC | I | | S AGT | | n Aat | | T ACA | _ | L TTG | _ | L· TTG , | | | V GTC | N AAT | G GGA | 53 186 |
| D GAC | g ggt | P CCC | C TGC | S TCT | | T ACA | | | V GTG | | | | | | Ŵ TGG | G GGG | T ACT | V GTG | C TGT | 73 246 |
| D GAT | D GAT | G GGG | W TGG | N AAC | T ACT | T ACT | A GCC | S TCA | T ACT | | | C TGC | K AAA | Q CAG | L CTT | | | PCCA | F TTT | 93 306 |
| S TCT | F TTC | A GCC | M ATG | F TTT | R CGT | F TTT | | Q CAA | | V GTG | | R AGA | H CAT | G GGA | K AAA | I ATT | W TGG | L CTT | D GAT | 113 366 |
| D GAT | V GTT | S TCC | C TGT | | G GGA | N AAT | E GAG | S TCA | A GCT | | | E GAA | | Q CAA | H CAC | | E. GAA | | G GGA | 133 426 |
| S AG€ | H CAT | N AAC | C TGT | Y TAT | H CAT | G GGA | E GAA | D GAT | V GTT | G GGT | V GTG | N AAC | C TGT | Y TAT | G GGT | E .GAA | A GCC | N AAT | L CTG | 153 486 |
| GG¶ .∏ | L TTG | | | V GTG | | | | N AAC | | C TGT | | G GGG | | V GTG | | V GTG | K AAA | F TTC | Q CAA | 173 546 |
| E⁼ GAĀ | R AGG | W TGG | G GGG | T ACT | I ATA | C TGT | D GAT | D GAT | G GGG | W TGG | N AAC | L TTG | N AAT | T ACT | A GCT | A GCC | V GTG | V GTG | | 193 606 |
| R AGG | Q CAA | L CTA | G GGA | C TGT | P CCA | S TCT | S TCT | F TTT | I ATT | S TCT | S TCT | | V GTT | | n aat | S AGC | P CCT | A GCT | V GTA | 213 666 |
| === | R CGC | P | I ATT | W TGG | L CTG | D GAT | | | L TTA | | | G GGG | N AAT | E GAG | L TTG | A GCA | L CTC | W TGG | N AAT | 233 726 |
| | R AGA | | | | | | | | | | | | | | | V GTC | T ACA | L TTA | T ACT | 253 786 |
| | Y TAT | | | | | | | | | | | | | | | | C TGT | | G GGG | 273 846 |
| R AGA | V GTA | E GAG | | | | | | | W TGG | | | | | | H CAT | | W TGG | | N AAT | 293 906 |
| A GCT | A GCA | | D GAT | V GTC | | C TGC | | | L TTG | | | | | A GCA | | H | F TTC | A GCT | G GGC | 313 966 |
| L TTG | P CCT | - H CAT | L TTG | Q CAG | | G GGG | | | V GTT | | | L CTT | | - G GGT | V GTC | S TCC | C TGC | S TCC | G GGT | 333 1026 |
| N AAT | E GAA | S TCT | | L CTT | W TGG | D GAC | | R AGA | | S TCC | | T ACC | | | F TTT | D GAC | C TGT | L CTT | H CAT | 353 1086 |

Fig. 2B

v I C S D G Α D L Ε R 373 CAA AAC GAT GTG TCT GTG ATC TGC TCA GAT GGA GCA GAT TTG GAA CTG CGA CTA GCA GAT V G R Ē V R Ι H Ε GGA AGT AAC AAT TGT TCA GGG AGA GTA GAG GTG AGA ATT CAT GAA CAG TGG TGG ACA ATA 1206 W N K N Ε. Q V Α L V С K TGT GAC CAG AAC TGG AAG AAT GAA CAA GCC CTT GTG GTT TGT AAG CAG CTA GGA TGT CCG 1266 F G S R R K Ρ S Α Ν Ε Α R D 433 TTC AGC GTC TTT GGC AGT CGT CGT GCT AAA CCT AGT AAT GAA GCT AGA GAC ATT TGG ATA C T G N E S Α L W D C ${f T}$ Y AAC AGC ATA TCT TGC ACT GGG AAT GAG TCA GCT CTC TGG GAC TGC ACA TAT GAT GGA AAA 1386 R R S . D A G V С S Ι D GCA AAG CGA ACA TGC TTC CGA AGA TCA GAT GCT GGA GTA ATT TGT TCT GAT AAG GCA GAT 1446 L R L V G H S P Α С Y G R L E V Υ. 493 CTG GAC CTA AGG CTT GTC GGG GCT CAT AGC CCC TGT TAT GGG AGA TTG GAG GTG AAA TAC V . . C H D R W S \mathbf{T} R N 513 CAA GGA GAG TGG GGG ACT GTG TGT CAT GAC AGA TGG AGC ACA AGG AAT GCA GCT GTT GTG 1566 <u>_</u> Ρ. K M Η V F G M т Y 533 AAA CAA TTG GGA TGT GGA AAG CCT ATG CAT GTG TTT GGT ATG ACC TAT TTT AAA GAA Ι W L D D V S С Ι٠ G N S 553 GCA TCA GGA CCT ATT TGG CTG GAT GAC GTT TCT TGC ATT GGA AAT GAG TCA AAT ATC TGG 1686 G W G K Η N С V H R · E 573 TGT GAA CAC AGT GGA TGG GGA AAG CAT AAT TGT GTA CAC AGA GAG GAT GTG ATT GTA 1746 S G D Α Т W G L. R V L G G S N Ŕ 593 TGC TCA GGT GAT GCA ACA TGG GGC CTG AGG CTG GTG GGC GGC AGC AAC CGC TGC TCG F 0 G R W Т V G С D D 613 GGA AGA CTG GAG GTG TAC TTT CAA GGA CGG TGG GGC ACA GTG TGT GAT GAC GGC TGG AAC 1866 V v C S . C Q Ŀ D P S I Ι 633 AGT AAA GCT GCA GCT GTG GTG TGT AGC CAG CTG GAC TGC CCA TCT TCT ATC ATT GGC ATG , **T** S G Y G K I W L 653 GGT CTG GGA AAC GCT TCT ACA GGA TAT GGA AAA ATT TGG CTC GAT GAT GTT TCC TGT GAT 1986 С L S R N S G G 673 GGA GAT GAG TCA GAT CTC TGG TCA TGC AGG AAC AGT GGG TGG GGA AAT AAT GAC TGC AGT 2046 Н E D G V I С S D S 693 Α CAC AGT GAA GAT GTT GGA GTG ATC TGT TCT GAT GCA TCG GAT ATG GAG CTG AGG CTT GTG 2106 С R Α G K V Ε V N A -- O G Α 713 GGT GGA AGC AGC AGG TGT GCT GGA AAA GTT GAG GTG AAT GTC CAG GGT GCC GTG GGA ATT 2166 G G М N I A E V V Ċ R CTG TGT GCT AAT GGC TGG GGA ATG AAC ATT GCT GAA GTT GTT TGC AGG CAA CTT GAA TGT

Fig. 2C

R V S P R E Η F T Ε R 753 GGG TCT GCA ATC, AGG GTC TCC AGA GAG CCT CAT TTC ACA GAA AGA ACA TTA CAC ATC TTA C G G Е Α S L D С I R W 773 ATG TCG AAT TCT GGC TGC ACT GGA GGG GAA GCC TCT. CTC TGG GAT TGT ATA CGA TGG GAG 2346 С L Ε Α Η N M Α S L Ι С S 793 TGG AAA CAG ACT GCG TGT CAT TTA AAT ATG GAA GCA AGT TTG ATC TGC TCA GCC CAC AGG 2406 Q С R L G Α D М P S G R V E V K Η 813 CAG CCC AGG CTG GTT GGA GCT GAT ATG CCC TGC TCT GGA CGT GTT GAA GTG AAA CAT GCA V C D S D F S L Η Ν GAC ACA TGG CGC TCT GTC TGT GAT TCT GAT TTC TCT CTT CAT GCT GCC AAT GTG CTG TGC G D Α I S L S G D Н AGA GAA TTA AAT TGT GGA GAT GCC ATA TCT CTT TCT GTG GGA GAT CAC TTT GGA AAA GGG 2586 N G L T Ε W K F С G S A Q Ε Ε \mathbf{T} Η Α 873 AAT GGT CTA ACT TGG GCC GAA AAG TTC CAG TGT GAA GGG AGT GAA ACT CAC CTT GCA TTA 2646 I . H Н P Ε D Т C S R Ε V V 893 TGC CCC ATT GTT CAA CAT CCG GAA GAC ACT TGT ATC CAC AGC AGA GAA GTT GGA GTT GTC 2706 لِج R D V R V L N G K S D Q C G 913 TCC CGA TAT ACA GAT GTC CGA CTT GTG AAT GGC AAA TCC CAG TGT GAC GGG CAA GTG 2766 G Н G S L C D Т H D 933 GAG ATC AAC GTG CTT GGA CAC TGG GGC TCA CTG TGT GAC ACC CAC TGG GAC CCA GAA GAT 2826 I,f Q L S С G Α L S 953 CGT GTT CTA TGC AGA CAG CTC AGC TGT GGG ACT GCT CTC TCA ACC ACA GGA GGA AAA 2886 I $s \cdot v$ G E R R V W . G Ē H R F H C N 973 ATT GGA GAA AGA AGT GTT CGT GTG TGG GGA CAC AGG TTT CAT TGC TTA GGG AAT GAG 2946 Ċ Т N Q M v С L G Ρ Ρ I Н N 993 Α TCA CTT CTG GAT AAC TGT CAA ATG ACA GTT CTT GGA GCA CCT CCC TGT ATC CAT GGA AAT 3006 G S L Т Ρ. Q L F P C 1013 ACT GTC TCT GTG ATC TGC ACA GGA AGC CTG ACC CAG CCA CTG TTT CCA TGC CTC GCA AAT V Α V P E G S L I C 1033 Α GTA TCT GAC CCA TAT TTG TCT GCA GTT CCA GAG GGC AGT GCT TTG ATC TGC TTA GAG GAC 3126 G D S R C Α G R 1053 AAA CGG CTC CGC CTA GTG GAT GGG GAC AGC CGC TGT GCC GGG AGA GTA GAG ATC TAT CAC 3186 D F G Ι C D D G W D L S D Α Н 1073 GAC GGC TTC TGG GGC ACC ATC TGT GAT GAC GGC TGG GAC CTG AGC GAT GCC CAC GTG GTG 3246 G C G V F Α N Α Т V - S Α Η 1093 TGT CAA AAG CTG GGC TGT GGA GTG GCC TTC AAT GCC ACG GTC TCT GCT CAC TTT GGG GAG 3306 D D L N С \mathbf{T} G T S E GGG TCA GGG CCC ATC TGG CTG GAT GAC CTG AAC TGC ACA GGA ACG GAG TCC CAC TTG TGG 3366

Fig. 2D

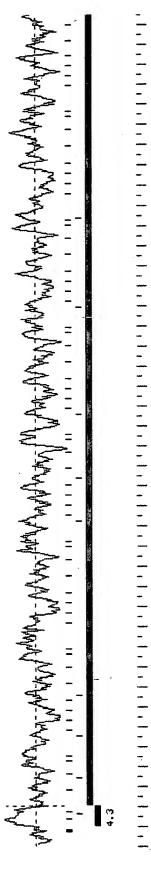
| _ | | | S TCC | R CGC | G GGC | W TGG | G GGG | Q CAG | H CAC | D GAC | C TGÇ | R AGG | H CAC | K AAG | - E GAG | D GAC | A GCA | G GGG | V GTC | 1133 3426 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|-----------|-----------|------------|------------|--------------|
| I ATC | C TGC | S TCA | E GAA | F TTC | T ACA | A GCC | L TTĢ | R AGG | L CTC | Y TAC | S AGT | E GAA | T ACT | E GAA | T ACA | E GAG | S AGC | C TGT | A GCT | 1153 3486 |
| G GGG | R AGA | L TTG | E GAA | V GTC | F TTC | Y TAT | N AAC | G GGG | T ACC | W TGG | G GGC | S AGC | V GTC | G GGC | R AGG | R AGG | N AAC | I ATC | T ACC | 1173 3546 |
| T ACA | A GCC | I ATA | A GCA | G GGC | I ATT | V GTG | C TGC | R AGG | | L CTG | G GGC | | G GGG | E GAĢ | N AAT | G GGA | V GTT | . V GTC | S AGC | 1193 3606 |
| L CTC | | P CCT | | S TCT | K AAG | T ACA | | S TCT | G GGT | F TTC | M ATG | W TGG | V GTG | D GAT | D GAC | I ATT | Q CAG | C TGT | P CCT | 1213 3666 |
| K AAA | T ACG | H CAT | I ATC | S TCC | I ATA | W TGG | Q CAG | C TGC | L CTG | S TCT | A GCC | P CCA | W TGG | E GAG | R CGA | R AGA | .I ATC | S | S AGC | 1233 3726 |
| P CCA | A GCA | E GAA | E GAG | T ACC | W TGG | I ATC | T ACA | C TGT | | D GAT | R AGA | I ATA | R AGA | V GTG | R CGT | G GGA | G GGA | D GAC | T ACC | 1253 3786 |
| . = | | | G GGG | | V GTG | E GAG | I ATC | W TGG | H CAC | A GCA | G GGC | S TCC | W TGG | G GGC | T ACA | V GTG | C TGT | D GAT | D GAC | 1273 3846 |
| | ŤGG | D GAC | L CTG | | E GAG | A GCG | | V GTG | V GTG | C TGT | Q CAG | Q CAG | L CTG | G GGC | C TGT | G GGC. | S TCT | A GCT | L CTG | 1293 3906 |
| GC[I | | | | | | | | G GGC | Q CAG | G GGA | T ACT | G GGA | T ACC | I ATC | W TGG | L TTG | D GAT | D GAC | M ATG | 1313 3966 |
| CGĞ | TGC | • | | | | | F TTT | L CTA | W TGG | D GAC | C TGT | H CAC | A GCC | K AAA | CCC | W TGG | G GGA | Q CAG | S AGT | 1333 4026 |
| 12 125 | TGT | | | | | | A GCT | GGC | V GTG | R AGG | C TGC | S TCT | G GGA | Q CAG | S TCG | L CTG | K AAA | S TCA | L CTG | 1353 4086 |
| AAŢ | | | TCA | | | | | | | TTA | S TCC | | | F TTT | G GGG | L CTC | L CTT | L CTC | L CTG | 1373 4146 |
| | | | | | | | | | | CGA | | Q CAG | K AAA | Q CAA | K AAA | H CAT | L CTG | P CCC | L CTC | 1393 4206 |
| | | | | | | | | | | | E GAG | N AAT | L TTA | F TTC | H CAT | E GAG | M ATG | E GAG | T ACC | 1413 4266 |
| | | | | | | | | | | R AGA | T ACC | S TCA | D GAT | D GAC | T ACC | CCC | N AAC | H CAT | G GGT | 1433 4326 |
| | E GAA | D GAT | A GCT | S AGC | D GAC | T ACA | S TCG | L CTG | L TTG | G GGA | V GTT | L CTT | PCCT | A GCC | S TCT | E GAA | A GCC | T ACA | K AAA \ | 1453 4386 |
| * TGA | | • | | | | | | | | | | | | ~ | | | | | | 1454 4389 |
| | | | | | | | | | | | GAACA | | | | | | | | | 4468 4547 |

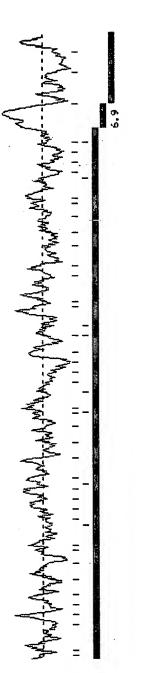
4626

AC

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Fig. 2E





1001 1041 1081 1121 1161 1201 1241 1281 1321 1361 1401 1441

Fig. 2F

Cas Nolution

Fig. 2G

| 0 | | 10 | | | | 50 | | |
|------------|----------------|------------------|--|---|--------------|-------------------------|---------------------|-------|
| | | | | | | LRLVNGDGPC | | |
| MC.I | MAL | GR | ······································ | CVLLLGTM | : NGGOALE | ::: :: LRLKDGVHRCI | SCBANZAKHUG: | · · · |
| | | | 10 | |) | | 40 | |
| | | 80 | 90 | 100 | 110 | 120 | | |
| Hum | TVCDDGWN | TTASTVVCF | QLGCPFSFAM | IFRFGQAVTR- | HGKIWLDDVS | CYGNESALWE | CQHREWG | SHN |
| | | | | | | : :::: CEGTESTVSDO | | |
| wor | IVEGIRNI | | 70 | | | 100 | 110 | NDG |
| | 140 | 150 | 160 | 170 | 180 | 190 | 200 | |
| HUM | CYHGEDVG | VNCYGEANI | GLRLVDGNNS | CSGRVEVKFQ | ERWGTICDDG | WNLNTAAVVCI | RQLGCPSSFI | SSG |
| Bale 1 | :: ::: | : : : | .::: | :::::: | : : . : | .:.::: | .::: | : |
| | YNHGRDAG 20 | VVCSG 130 | FVRLAGGDGF 140 | CSGRVEVHSG | EAWIPVSDGN | FTLATAQIICA 170 | AELGCGKAVS 1 0 0 | VLG |
| . ا | | 130 | 140 | 130 | . 100 | 170 | 100 | |
| [.i | | | | | | 260 | | |
| HUM | VVNSPAVL | | | | | CYDSSDLELRI | | |
| 1 | | : | CECEEDEL W | | | : . : : /CSAYSEVRL-! | :.:::: | .:: |
| . T | | | | | | CSAYSEVRL-P | | QΛF |
| 12 II | | | | 220 | 230 | 210 | 230 | |
| 13 | 280 | 290 | 300 | 310 | 320 | 330 | 340 | |
| HUM | | | | | | VWLDGVSCSGI | | |
| -1/0 | : ::: | : :. | | ::::::::::::::::::::::::::::::::::::::: | ::: .: | ::: OILTARFHCSG | . : : : : : . : | |
| | | | | | | ILTARFHCSGA 310 | | TAL |
| | 200 | 270 | . 200 | 250 | 300 | 310 | 320 | |
| | 350 | 360 | 370 | 380 | 390 | 400 | 410 | |
| Hum | VNFDCLHQ | NDVSVICSI | GADLELRLAD | GSNNCSGRVE | VRIHEQWWTI | CDQNWKNEQA | LVVCKQLGCP | FSV |
| • | | | • | | | : . QVI | | |
| WCI | | NTASVICS- 340 | GNQI | | | ·QV | | -sv |
| | 330 | 340 | | | | | .350 | |
| | 420 | 430 | 440 | 450 | 460 | 470 | 480 | |
| HUM | FGSRRAKP | SNEARDIW | INSISCTGNES | SALWDCTYDGE | CAKRTCFRRSI | DAGVICSDKAD | LDLRLVGAHS | PCY |
| | : | · · · · | : | : | | ::: . CSDSRQ | : ::: | :: |
| WCI | SQP | TGSA | ASEDS | SAPY | | | | PCP |
| | | 360 | | | | 370 | 380 | |
| | 490 | 500 | 510 | 520 | 530 | 540 | . 550 | |
| Hum | GRLEVKYQ | | | | | EASGPIWLDDV | | DCE |
| | | | | | | | | |
| WCI | | | | | | AGSGPIWLDNL | | RCI |
| | रपरा | 400 | 470 | 420 | 420 | 440 | 4 20 | |

| Hum | HSGWGKHNCVI | | GDATWGLRLV | | LEVYFQGRWG | • | 620 AAAVVCSQLDC |
|--------------------------|--------------------|-----------------------|--------------------|-------------------|------------------|-------------|-----------------------|
| WCI | SRGWGQHNCRI | | | | LEVFYNGTWG | | TVSTICRQLGC 520 |
| Hum | 630 PSSIIGMGLGI | NASTGYGKIW | | SDLWSCRNS | SWGNNDCSHS | EDVGVICSDA | 690 SDMELRLVGGS |
| WCI | GDSGTLNSSV 530 | ALREGFRPQW | | TSLWQCPSD: | | | RQIRLVDGG 590 |
| Hum | .::.:. | VQGAVGILCA ::.:::: | . : : : | VCRQLECGS | AIRVSREPHF :: | * . : | 760 NSGCTGGEASL |
| WCI | 600 | 610 | 620 | | | 61GSGP1WLD | EVNCRGEESQV 660 |
| Hum | | rachinmeas | LICSAHROPE | elvgadmpes | GRVEVKHADT | | 830 LHAANVLCREL |
| 1.5 WCI | | | VICSGFVE | | GRVEVHSGEA | WTPVSDGNFT | LPTAQVICAEL |
| l.u l.u l.u Hum | | GDHFGKGNGL | | SETHLALCP | IVQHPEDTCI | HSREVGVVCS | 900 RYTDVRLV-NG |
| WC WC | | HMPFRESDGQ | | GEPELWSCP | RVPCPGGŤCL | HSGAAQVVCS | VYTEVQLMKNG |
| | | NVLGHWGSLC | DTHWDPEDAF | | TALSTTGGKY | IGERSVRVWG | HRFHCLGNESL |
| ## WCI | | KISGRWRALC | ASHWSLANAN | IVVCRQLGCG | VAISTPRGPH | LVEGGDQIST. | AQFHCSGAESF |
| Hum | | APPCIHGNTV | | PLFPCLANV | SDPYLSAVPE | GSALICLEDK | RLRLVDGDSRC |
| WCI | LWSCPVTALG | | | OVLPQCNDFL | SQPAGSAASE | ESSPYCSDSR | OLRLVDGGGPC 940 |
| • | .::::: | | ::.::.:: | : : : : : : : | :: :::::: | SGPIWLDDLN | 1110 CTGTESHLWQC |
| WCI | GGRVEILDQG 950 | | | | | | CTGKESHVWRC 0 1010 |
| Hum | | | 1140 SEFTALRLYS | | | • | 1180 AIAGIVCROLG |
| WCI | | RHKEDAGVIO | SEFLALRMV | SEDQQCAG | WLEVFYNGTV | IGSVCRSPMED | ITVSVICRQLG |

| | 1190 | 1200 | 1210 | 1220 | 1230 | 1240 | |
|------------|------------------|-----------|--------------|--------------------|---------------|------------------|-----------------|
| Hu | | | | | | | TCEDR |
| 1 10 | | • • • • | :: ::: : | | :: :.:: ` | :: ::. : | .::.: |
| · WC | CGDSGS | LNTSVGLRE | GSRPRWVDLI | QCRKMDTSLW(| QCPSGPWKYS | SCSPKEEAYI | SCEGRRPKSCPTAAA |
| | 1080 | 1090 | 1100 | 1110 | 1120 | 1130 | 1140 |
| | | 1250 | 1260 | 1270 | 1280 | . 1290 | 1300 |
| Hum | · | | | | | | ALRDASFGQGTGTIW |
| 1.04 | | | | | | | |
| | | | | | | | AVRSAAFGPGNGSIW |
| | 1150 | 1160 | 1170 | 1180 | 1190 | 1200 | 1210 |
| _ | ; | | | | • | | |
| 1 | 310 310 | 1320 | 1330 | 1340 | | . 13 | 50 1360 |
| HUM | | | | | | | SLKSLNASSGHLALI |
| W/CI | LDEVOC | GGRESSIWD | | CKHEEDAGVR | ᠁ ઽઽૡઌ₽ૡૡ૱ | ∙ И≳™™Չ™₽Ъ⊈™™ | SLPGIFSLPGVLCLI |
| <i>a</i> r | 1220 | 1230 | 1240 | 1250 | 1260 | 1270 | 1280 |
| | | E. | | • | | | |
| | | 0 13 | 80 | 1390 | | 1400 | 1410 |
| Hum | LSSIFG | LLLLVLFIL | FI TWCRVQK - | QKHLP | LRVS | -TRRRG | SLEENLFHEME |
| 10.1 | | | | | | | <u> </u> |
| 1, 2 | | | | ALSSYEDALA 1320 | | | DOMTDVPDENYDDAE |
| .] | 1290 | 1300 | 1310 | 1320 | 1330 | 1340 | 1350 |
| i, ij | | | 1420 | | 1430 | | 1440 |
| Hun | 1 TC | | | TRTSD | DTPNHG | CEDAS | DTSLLGV |
| 1,4 | | | | .:.:. | | | : : |
| "WC | | | | | | | GKKGDAGYDDVELSA |
| ι,Π . = | 1360 | 1370 | 1380 | 1390 | 1400 | 1410 | 1420 |
| .f == | 1450 | | | | | | |
| | . LPASEA | T' - K | | | | | |
| | | | | | | • | |
| 1-1: | : .: . | : | | | | | |
| • | : .: . LGTSPV | | | | | , | |
| • | | | | | | , | |

Fig. 2I

Fig.2J

| | 10 | . ∠0 | 30 | | | | 70 |
|-----------|----------------|-----------------------|-------------------------|------------------------------------|---------------|--------------------------|------------------------|
| HUM | ATGATGCTGCC | CTCAAAACTCGT | GGCATATTGA' | TTTTGGAAGAT | GCTGCTGTCA: | CAGAACCTT" | TTCTCTG |
| , | ::: | .::: ; | :: | • | ::.:.: | ::: | |
| WCI | ATG | .::: ; GCTC-T | GG | | GCAGACA | CCTC | r-ccctg |
| -, | | | 10 | | | 20 | |
| | | | | | | | |
| | 80 | 90 | 100 | 110 | 120 | 130 | 140 |
| Hum | CTGTGGTAACT | TTGCATCCTGCT | | | | | |
| , 1011 | | : : ::::: :: | ::: | ::. : | ••• | | |
| Wes | C-GGGGACTCT | -GTGTCCTCCT | CCTC | GGCAC | CATGGTG(| CTCCTCAAC | יייריינינים. |
| ••• | 30 / | 40 | 50 | , 0 | 60 | 70 | 80 |
| | 30 | 10 | 30 | | | 70 | 80 |
| | 150 | 160 | 1.70 | 1-2-0 | 1-20 | 200 | 210 |
| ا مد الحا | | STCAATGGAGAC | | | | | |
| וויטודו | GIIGAGGCIGG | ········· | GGICCCIGCI | CIGGGACAGIG | GAGGIGAAAI. | CCAGGGACAC | 310000 |
| WCI | CCTCACCTTC | AAGGATGGAGTC | Catccctctc | ・・・・・・・・・・ み ごごごろ ごみご でご | | | . : : : : : \mccccc |
| j | 90 | | | 120 | | | 150 |
| .Ú | | 100 | 110 | 120 | 130 | 140 | 120 |
| .U | 220 | 230 | 240 | 250 | 260 | 270 | |
| مر الأ | | 250 ATGATGGGTGGA | | | | | naas mrim |
| וייעות | | | | | | | |
| 5.77 | ACACTCCATCC | | CAMMOAACO | : ::.:::: | ::::::::::::: | | : : : |
| "WCI | ACAGIGGAIGG | STTACAGGTGGA | -CATTGAAGG | AIGCAICIGIA | GIGIGCAGAC | AGCTGGGGTG. | rggagct |
| . = | 7.00 | -170 | 180 | 190 | 200 | . 210 | |
| | 00 20 | 300 | . 210 | | 220 | | |
| | | rgtitcgttttg | | | | | N M C M M M C |
| 100 | ICITICGCCA | diliculliu | GACAAGCCGI | GACIAGACA | IGGAAAAII. | | AIGIIIC |
| ‡.J.C (| | : :: : TTTCCTGGAGG | CCCMMXMMMM | | | | iii |
| | | 230 24 | | | | | AIACIIC |
| | 20 4 | 24 | 0 - 25 | 0 260 | 270 | 280 | |
| 14 | 350 | 360 37 | n 20 | 0 200 | 400 | 410 | |
| ا مياليا | | AATGAGTCAGCT | | | | | |
| | | : .::::::::: | | | | | |
| 1.10 | מתרשרת אתרורים | ACAGAGTCAACT | ::.: :: : CECACECACE | :: :.:: CMC3CC3M MC | | : : ::.: : and mamd d | :.:: :: Ta amaa |
| wel | | | | | | | TAATGAT 350 |
| | 290 | 300 31 | 0 32 | 0 33 | 0 34 | J . | 350 |
| | 420 | 430 44 | 0 45 | | _ | 470 | |
| 11. | | | | | | | |
| רשטרון | | TGGTGTGAACT | | | | | |
| | | | | :: : ::.: | | | |
| WCI | | ATGGTCGGGA | | | | | |
| | 360 | 370 | 380 | 390 | 400 | 410 | 420 |
| | 4.0.0 | 500 | | | | | |
| i). | 490 | 500 | 510 | 520 | | 540 | 550 |
| HVM | | CAGGGAGAGTGG | • | | | | |
| . 101 | | ::::: :::::: | | | | | ::: |
| WE | | CAGGGCGAGTAG | | | | | |
| | 430 | 440 | 450 | 460 | 470 | 480 | |

| | 560 | 570 | 580 | 590 | 600 | 610 | 620 |
|------------|------------|-------------|--|--------------------|--------------|-----------------------------------|-------------|
| Hum | ACTTGAATAC | TGCTGCCGTGG | TGTGCAGGC | | | | |
| • | .::.: | | ::: | | :::.:: | | : . : : : |
| WCI | TCACACTTGC | CACTGCC | CAG | | ATCATC | rgr | CAGAGTTGGG |
| | | 500 | | | 510 | | 520 |
| | | | | | | | |
| | 630 | 640 | 650 | 660 | 670 | 680 | . 690 |
| Hum | TAATAGCCCT | GCTGTATTGCG | • | | | | |
| • | ::.: | | : | :::: :::: | : : :: | :::::: :::: | : ::: |
| WCI | TTGTGGC | | AAG | GCTGTGTC | TGTC | TGGGACATGA | GCTCTT |
| | 530 | | | 540 | 550 | | |
| | | | | | | | |
| | 700 | 710 | . 720 | 730 | 740 | 750 | 760 |
| HUM | CTGGAATTGC | AGACATCGTGG | ATGGGGAAA' | CATGACTGC | CAGTCACAATO | AGGATGTCAC | ATTAACTTGT |
| | : : | | | | ::::: | | : |
| WCI | CAGAGAGTCC | AGT-GCC | | -CAGGTCTG- | -GGCT | AAGAGTTCA: | GG |
| • | 570 😽 | 580 | | 590 | | 600. | |
| | ŀ | | | | | • | |
| | 770 | 780 | 790 | 800 | 810 | 820 | 830 |
| HVM | TATGATAGTA | GTGATCTTGAA | CTAAGGCTT | STAGGTGGA <i>I</i> | CTAACCGCTC | TATGGGGAGA | GTAGAGCTGA |
| | | . :: : :::. | :: :: | :: | :: :.: | : | ::: |
| -WCI | TGTGAGGGGG | AGGAGCCTGAG | CTCT- | GGGT | CTGCCC-CAC | AGTG | CCCTG- |
| ınd = | 610 | 620 | 630 | _ | 640 | • | 650 |
| : == | | | | | • | | |
| . 년 i | 840 | 850 | 860 | 870 | 880 | , 890 | 900 |
| HUM | AAATCCAAGG | AAGGTGGGGGA | CCGTATGCC | ACCATAAGT | GAACAATGC: | rgcagctgate | TCGTATGCAA |
| | :::: | ::::: | ::::::::::::::::::::::::::::::::::::::: | :::: : ::: | | : ::: : .: | : : .:::. |
| WC1 | TCCA | GGGGGC | ACGTGTC | ACCACA-GTO | GATC TGC | r-caggttgt | TGTTCAGCAT |
| ! i | | 660 | 670 | 68 | 30 | 690 | 700 |
| . . | | | | | | | |
| | 910 | | | | 950 | | 970 |
| Hum | GCAGTTGGGA | TGTGGAACCGC | ACTTCACTT | CGCTGGCTTC | CCTCATTTG | CAGTCAGGGT | TGATGTTGTA |
| , | | .:: ::: | | | | | |
| .≟ WCI | | AGAAGTCCGGC | | | | | |
| = | 710 | . 720 | 730 | | 740 | 750 | 760 |
| | | | | | | | |
| <u> </u> | | 990 | | | | | 1040 |
| HUM | TGGCTTGATG | GTGTCTCCTGC | | | | | |
| Idel. | CAACAMM | | | | | : ::.:. :: | |
| wcj. | | TCTG-GAC | AATGGAGAG | cecrerere 790 | CTCCC-ACT | | |
| | . 770 | , | 80 | 790 | 800 | 810 | 820 |
| | 1050 | 1060 | 7.070 | 1000 | 1000 | 1100 | 1110 |
| Llum | | TCTTCATCAAA | | | | | |
| (-1001 | | :: ::: : | | | | | |
| 14/61 | | TCGTCAGCTCG | | | | | |
| WC1 | | 840 | | | 870. | AG | 880 |
| | 0.50 | 0-10 | . 556 | 550 | 370. | | 300 |
| | 1120 | 1130 | 1140 | 1150 | 1160 | 1170 | 1180 |
| 1.1 | AGCAGATGGA | AGTAACAATTG | ₽₽₽₽ ₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽ | AGTAGAGGT | ፲፱፫፬ ፲፱፫፬ | ひ、エェ יבבתבים בתבעמים במחת במיד | የሬርልርልልጥልጥር |
| MWM | | ::.:. :: | | | | | |
| WC1 | | AGAAGGTG | | | | | |
| -V_U1 | 890 | 9 | 00 | 910 | 920 | 930 | |
| | | | - - | | | | |

Fig. 2K

| | 119 | 0 120 | 00 121 | .0 12 | 20 12 | 230] | .240 | 1250 |
|------------------------|---------------|------------------|---------------------|------------|------------|------------|--------------------|-------|
| Hum | TGACCAGA | ACTGGAAGA | ATGAACAAGC | CTTGTGGTT | TGTAAGCAG | TAGGATGT | CGTTCAGCG | TCTTT |
| | <i>:</i> :.:: | ::: | .::. : | | :: : | | : .:.: | : .: |
| WCI | AGTCCT-TO | CCTGTGGAGT | TTGT | CT-GTGACT | GCC-C | TGGGTGGT | CTGACTGTT | CCCAT |
| | 940 | 950 | 9 | | 970 | | | |
| | | | | | | | _ | |
| | 126 | 50 12 | 270 12 | 80 1 | 290 1 | Ľ300 | 1310 - | 1320 |
| Hum | | | ACCTAGTAAT | | | | | |
| 1 (01) | | | : ::. : : | | | | | |
| 1.701 | | | ATCTGCTCAC | | | | | |
| WCI | | | 1020 | | | | | |
| | 1000 | 1010 | 1020 | 1030 | 1040 |) . 105 | ,0 T | .060 |
| | | | | | | | | |
| | | | 340 13 | | | | | |
| HUM | | | GACTGCÁCAI | | | | | |
| | | | .:::: | | | | | |
| WCI | TGTCTC | AACCTACAGO | GCTCTGC | | | | | TACTG |
| | | 1070 | 1080 | | 1090 | 1100 |) | • |
| | | | | | • | | | |
| | 140 | 00 14 | 110 14 | 20 1 | 430 1 | 440 | 1450 | 1460 |
| HUM | CTGGAGTA | ATTTGTTCTC | SATAAGGCAGA | TCTGGACCT. | AAGGCTTGTC | GGGGCTCAT | :AGCCCTGT | TATEG |
| | :: | :.: | | | : :.: | | .: ::::: | :: |
| WCI | CTCAGA | CAC | - CAGGCAGC | TCCGCCT | GGTGGAC | ::GGGG-GC- | -GGTCCCTGC | GCCGG |
| 12 11 | .10 | | 1120 | | |) | | 1160 |
| ٠.] <u></u> | 0 | | 1120 | 1130 | 1110 | • | | 1100 |
| l <u>.</u> ų | 14 | 70 14 | 180 14 | 90 1 | 500 1 | 510 | 1520 | |
| | | | ACCAAGGAGAG | | | | | אשממ |
| HUM | | | :::::: | | | | | |
| !- uu | | | ACCAGGGCTCC | | | | | |
| i.fi | | | | | | | | GATGC |
| . ¶ | 11 | /0 1. | 130 13 | .90 1 | 200 | 1210 | 1220 | |
| | | | | | | | | |
| | | | 1550 | | | | | |
| HUM | | | CAATTGGGATG | | | | | |
| ĻΗ : 1. <i>λ</i> ρ. | | ::::: : | ::. :::: :: | | : ::: | . :: . | : :: | : |
| ii wc | CCGC-GTG | GTGTGCAGG | CAGCTGGGCTG | | | | TGCTCACTI | CGGGG |
| " <u> </u> | 230 | 1240 | 1250 | 1260 | 1270 | 1280 | 1290 | |
| . <u> </u> | | | | | | | | |
| | | | 1620 | | | | | |
| | | | rggctggatg <i>i</i> | | | | | |
| | | | ::: :::: .: | | | | | |
| WCI | CAGGATCA | GGGCCCATC' | rggttggaca <i>i</i> | CTTGAACTG | CACAGGAAA | GAGTCCCA | IGTGŤGGAG G | TGCCC |
| | 1300 | 1310 | 1320 | 1330 | 1340 | 1350 | 1360 | |
| | | | | | | | | |
| | 1670 | 1680 | 1690 - ' | 1700 | 1710 | 1720 | 1730 | |
| HUM | ACACAGTG | GATGGGGAA | AGCATAATTG | rgtacacaga | GAGGATGTG | ATTGTAACC | rgctcaggte | ATGCA |
| 1 . 6.41 | | | :::: :: :: | • | | | | |
| 1.761 | | | AGCACAACTG | | | | | |
| wci | | 1380 | 1390 | 1400 | | 1420 | 1430 | |
| | | | 2330 | 2200 | | 1120 | 2130 | |
| | 1740 | 1750 | 1760 | 1770 | 1780 | 1790 | 1800 | |
| L 1 | • | | | | | | | אמפאפ |
| [-{V/4 | ' | | GTGGGCGGC1 | | | | | |
| . , ,, | | | :::::::: | | | | | |
| WU | • | | GGTGAGTGAG | | | | | |
| | 144 | U 14. | 50 140 | ou 14 | 10 1 | 480 | 1490 | 1500 |

| | 1810 | 1820 | 1830 | 1840 | 1850 | 1860 | 1870 |
|-------------------|--|--|---|--|---|---|--|
| Hum | GGTGGGGC | ACAGTGTG | TGATGACG | GCTGGAACAG | TAAAGCTGCAG | CTGTGGTGTGT | AGCCAGCTGGACTG |
| | :::::: | : .:: :: | .:.:: | | :::: . | : . :.: :: | :: ::::: :.::: |
| WCI | CCTGGGGC | AGTGTCTG | CCGTAACC | CCATGGAAGA | CATCACTGTGT | CCACGATCTGC | AGACAGCTTGGCTG |
| | 151 | | 520 | 1530 | | | 560 1570 |
| | | · . | | | | | 1370 |
| | 1880 | 1890 | 1900 | 1910 | 1000 | 1020 | 1040 |
| | | | | | | | 1940 |
| HUM | | | | | | | ATTTGGCTCGATG |
| | | | | | : ::: : : | | |
| WCI | TGGGGA | CAGTGGAA | CCCTCAAC | TCTTCTGTTG | CTCTTAGAGAA | GGTTTTAGGCC | ACAGTGGGTGGAT- |
| , | 1 | 580 | 1590 | 1600 | 1610 | 1620 | 1630 |
| | | | | | | | |
| | 1950 | 1960 | 197 | 0 198 | 0 1990 | 2000 | 2010 |
| LJ | | | | | | | -GGGAAATAATGAC |
| RUM | | | | | : :::: . | | |
| . 10. | | | | | | | :::::::::::::::::::::::::::::::::::::: |
| WU | | | | | | | • |
| • | 1640 | 1650 | 1660 | 1670 | 168 | 0 1690 | 1700 |
| | ř. | | | | | | |
| | 2020 | 203 | 0 2 | 040 | 2050 | 2060 20 | 2080 |
| HUM | TGCAGTCA | CAGTGAAG | ATGTTGGA | GTG-ATCTGT | TCTGATG-CAT | CGGATATGGAG(| ETGAGGETTGTGGG |
| • • | : :: :. | :::: | :: | | : :: .: :: | :.:: : :: | : :::::. |
| =WCI | T-CATGCT | CTCCAAAG | GAGGAAGC | CTATATCTGG | TGTGCAGACAG | CAGACA - GATO | CCGCCTGGTGGA |
| | 1710 | 172 | | | 740 17 | | 760 |
| 3 | 2.20 | | - | | . 10 | 30 1 | |
| Ų | 209 | | 100 | 2110 | 2120 | 2130 21 | 140 2150 |
| 4 | | _ | | | | | |
| Hum | | | | | | | TTCTGTGTGCTAAT |
| = | :::::: | | · | | | | |
| = WCI | | | | AGTGGAGATC | CTTGACCAGGG | CTCCTGGGGCA(| CCATCTGTGATGAC |
| ∐ 17 ≃ | 770 1 | | | | | | |
| 1 | 70 1 | 780 | 1790 | 1800 | 1810 | 1820 | 1830 |
| === | 70 1 | 780 | 1790 | 1800 | 1810 | 1820 | 1830 |
| = | 216 | | 1790 170 | 1800 2180 | | | 1830 210 . 2220 |
| =] Hvm | 216 | 0 2 | 170 | 2180 | 2190 | 2200 2: | |
| _ • • | 216 GGCTGGGG | 0 2 AATGAACA | 170 TTGCTGAA | 2180 GTTGTTTGCA | 2190 | 2200 2: TGTGGGTCTGC | 210 2220 AATCAGGGTCTCCA |
| ī. | 216 GGCTGGGG | 0 2 AATGAACA | 170 TTGCTGAA | 2180 GTTGTTTGCA | 2190 GGCAACTTGAA | 2200 22 TGTGGGTCTGCZ | 210 2220 AATCAGGGTCTCCA |
| i i wci | 216 GGCTGGGG :::::: | 0 2 AATGAACA ::::: CCTGGACG | 170 TTGCTGAA .::: | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA | 2190 GGCAACTTGAA .:::::: | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC | 210 2220 AATCAGGGTCTCCA : ::::::: |
| i i wci | 216 GGCTGGGG | 0 2 AATGAACA ::::: CCTGGACG | 170 TTGCTGAA | 2180 GTTGTTTGCA | 2190 GGCAACTTGAA | 2200 22 TGTGGGTCTGCZ | 210 2220 AATCAGGGTCTCCA |
| i i wci | 216 GGCTGGGG :::::: CGCTGGGA | 0 2 AATGAACA ::::: CCTGGACG | 170 TTGCTGAA .::: ATGCCCGT 1860 | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 | 210 2220 AATCAGGGTCTCCA : ::::::: CCTGGACGCCA 1900 |
| i i wci | 216 GGCTGGGG :::::: CGCTGGGA 40 1 | 0 2 AATGAACA ::::: CCTGGACG 850 | 170 TTGCTGAA .::: ATGCCCGT 1860 | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 2270 | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 |
| # WCI # 18 | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 CAGAAA | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA | 2190 GGCAACTTGAA .:::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 2270 CGAATTCTGGC | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 TGCACTGGAGGGGA |
| # WC # 18 | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT | 2200 2: TGTGGGTCTGCI ::::: .:: TGTGGAGAAGC 1890 2270 CGAATTCTGGC | 210 2220 AATCAGGGTCTCCA : :::::::::::::::::::::::::::::::::: |
| # WC # 18 | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :::: . | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA :::::::: | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: | 2200 2: TGTGGGTCTGCI ::::::: TGTGGAGAAGC 1890 2270 CGAATTCTGGCI | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 TGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| # WC # 18 | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :::: . | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA :::::::: | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT | 2200 2: TGTGGGTCTGCI ::::::: TGTGGAGAAGC 1890 2270 CGAATTCTGGCI | 210 2220 AATCAGGGTCTCCA : :::::::::::::::::::::::::::::::::: |
| # WC # 18 | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC .:.: CTGTCTCT | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA ::::: TCCTTCTT | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: CGGGGACGG | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA :::: :: GATCAGGGCC | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT :::::::::: | 2200 2: TGTGGGTCTGC: ::::: ::: TGTGGAGAAGC: 1890 2270 CGAATTCTGGC: ::: ::: ATGAAGTGAACT | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| Hva WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: . | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: :: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG | 2200 2: TGTGGGTCTGC: ::::: ::: TGTGGAGAAGC: 1890 2270 CGAATTCTGGC: :: ::: ATGAAGTGAAC' 1960 2340 | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| Hva WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: . | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: :: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG | 2200 2: TGTGGGTCTGC: ::::: ::: TGTGGAGAAGC: 1890 2270 CGAATTCTGGC: :: ::: ATGAAGTGAAC' 1960 2340 | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| Hva WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 2290 AGCCTCTC | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: CGGGGACGG 1930 2310 TTGTATACG | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: : GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 2270 CGAATTCTGGC::: ATGAAGTGAAC- 1960 2340 CGTGTCATTTA | 210 2220 AATCAGGGTCTCCA : :::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| WCI Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT ::::. | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA .::: CGGGGACGG 1930 2310 TTGTATACG | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG | 2200 2: TGTGGGTCTGC: ::::::: TGTGGAGAAGC- 1890 2270 CGAATTCTGGC:.:: ATGAAGTGAAC- 1960 2340 CGTGTCATTTA | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 GCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| WCI Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT ::::. TATGGAGG | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: . CGGGACGG 1930 2310 TGTATACG :: . | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .:::::::::: | 2200 2: TGTGGGTCTGCZ ::::::: TGTGGAGAAGC 1890 2270 CGAATTCTGGC .:: ATGAAGTGAAC 1960 2340 CGTGTCATTTA :::: :: | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 TGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| WCI Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT ::::. | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: . CGGGACGG 1930 2310 TGTATACG :: . | 2180 GTTGTTTGCA :::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC 1890 2270 CGAATTCTGGC .:: ATGAAGTGAAC 1960 2340 CGTGTCATTTA :::: :: | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 GCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| WCI Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 2290 AGCCTCTC ::: GTCCCAAG 1980 | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT ::::. TATGGAGG | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA :.:: . CGGGACGG 1930 2310 TTGTATACG :: . TTGCCCTTC | 2180 GTTGTTTGCA :: :: :::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: :: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::.::: AGCAGCTGGGC 1880 2260 CATCTTAATGT :::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .:::::::: CGGCAACACAA | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC: 1890 2270 CGAATTCTGGC: :: .:: ATGAAGTGAAC' 1960 2340 CGTGTCATTTA: ::: :: C-TGCAATCAT' 2030 | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG 1980 | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: TCCTTCTT 1920 2300 TCTGGGAT ::::. TATGGAGG 1990 | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA .::: . CGGGACGG 1930 2310 TTGTATACG :: . TTGCCCTTC 2000 | 2180 GTTGTTTGCA :: :: ::::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: :: GATCAGGGCC 1940 | 2190 GGCAACTTGAA .::.::: AGCAGCTGGGC 1880 2260 CATCTTAATGT :::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .::::::: CGGCAACACAA 2020 | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 2270 CGAATTCTGGC- :: .:: ATGAAGTGAAC- 1960 2340 CGTGTCATTTA- ::: :: CC-TGCAATCAT- 2030 | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 IGCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| WCI Hum WCI | 216 GGCTGGGG :::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG 1980 2360 TTTGATCT | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: 1920 2300 TCTGGGAT :::: TATGGAGG 1990 2370 GCTCAGCC | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA .::: . CGGGACGG 1930 2310 TGTATACG .:: . TGCCCTTC 2000 2380 CCACAGGCA | 2180 GTTGTTTGCA :: :: ::::: GTGGTGTGCA 1870 2250 GAACATTACA :: :: :: GATCAGGGCC 1940 - 2320 ATGGGAGTGG :::: ::::: CTGGGGATGG 2010 2390 GCCCAGGCTG | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT :::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .:::::: CGGCAACACAA 2020 2400 GGTTGGAGCTGA | 2200 2: TGTGGGTCTGC: ::::: .:: TGTGGAGAAGC- 1890 2270 CGAATTCTGGC:.: ATGAAGTGAAC- 1960 2340 CGTGTCATTTA ::: :: C-TGCAATCAT- 2030 2410 ATATGCCCTGCT | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 GCACTGGAGGGGA :::::::::::::::::::::::::::::: |
| Hum WCI Hum | 216 GGCTGGGG ::::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG 1980 2360 TTTGATCT ::::: | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: 1920 2300 TCTGGGAT ::::: TATGGAGG 1990 2370 GCTCAGCC ::::: | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA .::: CGGGACGG 1930 2310 TGTATACG .: TGTCCCTTC 2000 2380 CCACAGGCA | 2180 GTTGTTTGCA ::::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: GATCAGGGCC 1940 - 2320 ATGGGAGTGG ::::::::: CTGGGGGATGG 2010 2390 GCCCAGGCTG | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .:::::::::::::::::::::::::::::::::::: | 2200 2: TGTGGGTCTGCI ::::::: TGTGGAGAAGC 1890 2270 CGAATTCTGGC .:: ATGAAGTGAAC 1960 2340 CGTGTCATTTA :::::: AC-TGCAATCAT 2030 2410 ATATGCCCTGCT | 210 2220 AATCAGGGTCTCCA : :::::::::::::::::::::::::::::::::: |
| Hum WCI Hum | 216 GGCTGGGG ::::::: CGCTGGGA 40 1 22 GAGA-GCC ::: CTGTCTCT 1910 290 AGCCTCTC ::: GTCCCAAG 1980 2360 TTTGATCT ::::: | 0 2 AATGAACA ::::: CCTGGACG 850 30 TCATTTCA :::: 1920 2300 TCTGGGAT ::::: TATGGAGG 1990 2370 GCTCAGCC ::::: | 170 TTGCTGAA .::: ATGCCCGT 1860 2240 .CAGAAA .::: CGGGACGG 1930 2310 TGTATACG .: TGTCCCTTC 2000 2380 CCACAGGCA | 2180 GTTGTTTGCA ::::::::: GTGGTGTGCA 1870 2250 GAACATTACA ::::::: GATCAGGGCC 1940 - 2320 ATGGGAGTGG ::::::::: CTGGGGGATGG 2010 2390 GCCCAGGCTG | 2190 GGCAACTTGAA .::::::: AGCAGCTGGGC 1880 2260 CATCTTAATGT ::::::::: CATCTGGCTGG 1950 2330 AAACAG-ACTG .:::::::::::::::::::::::::::::::::::: | 2200 2: TGTGGGTCTGCI ::::::: TGTGGAGAAGC 1890 2270 CGAATTCTGGC .:: ATGAAGTGAAC 1960 2340 CGTGTCATTTA :::::: AC-TGCAATCAT 2030 2410 ATATGCCCTGCT | 210 2220 AATCAGGGTCTCCA : ::::::::CCTGGACGCCA 1900 2280 GCACTGGAGGGGA :::::::::::::::::::::::::::::: |

Fig. 2M

| HUM | GTGAAACATG | CAGACACATG | GCGCTCTG | CTGTGATT | | TCTTCATGCT | 2490 GCCAATGTGCT |
|-------------|--------------------|---------------------|-------------------|----------|-----------------------|--|---|
| wci | | | | | | .:: : .:: '`A C''T' C' C' C' C' C''T' | ::: : :: :: GCCCAGGTCATCT |
| 211 | 0.00 | | | | 2150 | | 2170 |
| | `o.c.o.o | | | | | | |
| Dua | 2500 GTGCAGAGAA | 2510 TTAAATTGTG | | | | | 2560 AAAAGGG-AATGG |
| | | • | | | | :: :::: | |
| · WCI | | | | | | | GAGAGTCCGATGG |
| 218 | 30 2 | 190 2 | 200 | 2210 | 2220 | 2230 | 2240 |
| ر | 2570 | 2580 | 2590 | 2600 | 2610 | 2620 | 2630 |
| Hum | | | | • | | | CCCCATTGTTCAA |
| WCI | | ייי ייי ייי | | | | | ::::: :::::::::::::::::::::::::::::::: |
| 7T | 2250: | | 2270 | | 2290 | 2300 | 2310 |
| | | • | | | | | |
| a 1 | 2640 | 2650 | | | | 2690 | |
| Hum | | | | | • | | ACAGATGTECGAC |
| : WCI | | | | | | | ACAGAAGTCCAGC |
| 1.0 | 2320 | 2330 | 2340 | 2350 | 2360 | 2370 | 2380 |
| 1,4 | 2710 | 2720 | 2730 | 27 | 40 27 | 50 2 | 760 2770 |
| Hum | | | | | | | CACTGGGGCTCAC |
| | | | | | and the second second | :. :: :::: | |
| WCI | 2390 | | CAATGIGAC 2410 | | GGAGAT-GAA 2430 | GATCTCTGGA 2440 | CGATGGAGAGCGC 2450 |
| | | | | | 2.50 | 2110 | 2130 |
| # #50 J | | 2790 | | | | 820 2 | |
| HUM | TGTGTGACAC | CCACTGGGAC | | | | CAGCTCAGCT | GTGGGACTGCTCT |
| - WCI | TCTGTGCCTC | CCACTGGAGT | | | | | GTGGAGTCGCCAT |
| #, ## | 2460 | 2470 | 2480 | 2490 | 2500 | 2510 | 2520 |
| 1. <u>1</u> | 2850 | 2860 | 28 | 70 2 | 880 2 | 890 2 | 900 2910 |
| HUM | | | | _ | | | GTTTCATTGCTTA |
| | • | | | | | | .::::: :::::::::::::::::::::::::::::::: |
| WCr | | AGAGGACCAC 2540 | | | | | ATTTCACTGCTCA 2590 |
| | | | | | 23,0 | 2300 | 2330 |
| | | | | | | 2960 2 | |
| Hum | | | | | | | ATCCATGGAAATA |
| WCI | | | | | | | TCCCATGGCAACA |
| | 2600 | | | | . 2640 | | 2660 |
| | 2990 |) 3000 |) 3n· | 10 3 | .020 3 | 3030 3 | 040 3050 |
| Hum | | | | | | | ATGTATCTGACCC |
| | :.: :::::: | : : : : : : : : : : | :::::: | ::::: | .::: : . | . : : : . : . | . :.::: : :: |
| WC | CAGCCTCTGT | | | | | | TCCTGTCTCAACC 2730 |
| | 20/0 | 2000 | 2030 | 2/00 | 2/10 | 2/20 | 4/30 |

Fig. 2N

| | 306 | 50 | 3070 | 3080 | 3 | 090 | 3100 | 3 | 110 | 3120 |
|---|---------------------------------------|---------|---------------|----------|--------|---|---------|--------|------------|-------------------|
| Hum : | ATATTTGT | TGCAGT | TCCAGAGGG | | | | | | | |
| . • • · · | | | | | | | | | | |
| WCI | | | CTCAGAGGA | | | | | | | |
| , | 2740 | | | | | | | | | COM |
| | | | 2.00 | • | 2,,,, | 2,70 | | 2130 | . 2800 | |
| | 317 | 2.0 | 3140 | 3150 | . 3 | 160 | 2170 | , | 100 | 22.00 |
| 11 | | | | | | | | | | |
| HUM | | | GCCGGGAGA | | | | | | | |
| | | | | | | | | | | |
| WCI | | | GGCGGGAGA | | | | | | | 'GATG |
| | 2810 | 2820 | 2830 |). | 2840 | 285 | 0 | 2860 | 2870 | |
| • | | | | . ' | | | | | • | |
| | | | 3210 | | | | | | 250 | |
| Hum | GCTGGGACC | TGAGCG | ATGCCCACG1 | rggtgtg | TCAAAA | GCTGGGC | TGTGGAG | TGGCCT | TCAATGCCA | CGGT |
| • . | | | :: | | | | | | | |
| WCI | ACTGGGACC | TGGACG | ATGCCCGTGT | rggtgtg | CAGGCA | GCTGGGC | TGTGGAG | AAGCCC | TCAATGCCA | CGGG |
| ut: | 2880 | 2890 | 2900 |) . | 2910 | 292 | 0 | 2930 | 2940 | |
| | • | | • | | | | | | | |
| | 327 | 70 | 3280 | 3290 | 3 | 300 | 3310 | 3 | 320 | 3330 |
| L. Con | CTCTGCTC | CTTTGG | GGAGGGGTC | | | | | | | |
| 110.01 | | | :: .::.:: | | | | | | | |
| :=WCI | | | GGCAGGATC | | | | | | | |
| 13.00 | | | 2970 | | | | | 3000 | | GICC |
| \J | 2550 | . 2300 | 2570 | , | 2300 | 293 | · U | 3000 | 2010 | • |
| l, U | . 224 | ł O | 3350 | 2260 | , | 270 | 2200 | , | | 2400 |
| .41 | | - | CCTTCCCGC | | | | | | | |
| HUM | | | | | | | | | | |
| 3.101 | | | :::::::: | | | | | | | |
| WCI | | | CCTTCCCGG | | | | | | | GTCA |
| ·•·· : = | 3020 | 3030 | 3040 |) | 3050 | 306 | · • | 3070 | 3080 | |
| `t = | | | | | | | | | | |
| # # # 1 | | | 3420 | | | | | | | |
| HUM | | | CAGCCTTGA | | | | | | | |
| lgii i e e la a | | | . : : : : : : | | | | | | | |
| ··· WO | | | TGGCCCTCA | | | | | | | TGGA: |
| := | 3090 | 3100 | 3110 |) | 3 | 120 | 3130 | | 3140 | |
| | | | | | | | | | | |
| , *** | 348 | 30 | 3490 | 3500 | . 3 | 510 | 3520 | 3 | 530 | 3540 |
| UM | AGTCTTCTA | TAACGG | GACCTGGGG | CAGCGTC | GGCAGG | AGGAACA | TCACCAC | AGCCAT | AGCAGGCAT | TGTG |
| | · · · · · · · · · · · · · · · · · · · | | | | • • • | • | • • • | | | |
| WC | GGTTTTCT | ACAACGG | GACCTGGGG | CAGTGTC | TGCCGC | AGCCCCA | TGGAAGA | TATCAC | TGTGTCCGT | GATC |
| 31. | 50 31 | L60 | 3170 | 3180 | ı | 3190 | 3200 |) | 3210 | |
| | | | | | | | | | | |
| | 355 | 50 | 3560 | 3570 | 3 | 580 | 3590 | | 3600 | |
| Hum | TGCAGGCAG | CTGGGC | TGTGGGGAG | AATGGAG | TTGTC | GCCTCGC | CCCTTT | TCT- | AAGACAGG | TCTG |
| '''' | | | | | | | | | | |
| WCI | TGCAGACAC | CTTGGA | TGTGGGGAC | AGTGGA- | -AGTCT | -CAACAC | CTCTGTT | GGTCTC | 'AGGGAAGG' | TCTA |
| 322 | 20 32 | 230 | 3240 | 32 | 50 | 3260 |) · | 3270 | 3280 | |
| | | | | | | | | | | |
| - | 3610 | 3620 | 3630 | . 36 | 40 | 3650 | 36 | 60 | 3670 | |
| | | | ATGACATTC | | | | | | | ברריר |
| ויוערו | | | :: . :::: | | | | | | | : ::: |
| 1.11 | | | ATTTAATTC | | | | | | | |
| W | 3290 | 3300 | | | | | | | • | JUUU C |
| | 3430 | 2200 | 2210 | 3 | 32U | 3330 |) : | 34U | 3350 | |

| | 3680 | 3690 | 3700 | 3710 | 3720 | 3730 | 3740 | |
|-----------------|-----------------------|------------------------|-------------------|---------------------|------------------------|---|--|------------|
| Hum | | | | | | | AATAAGA | .G- |
| • | | | | | | | :::: | |
| WCI | ATGGAAAT 3360 | ACAGTTCAT 3370 | | | | | AAGACCCAAGA | .GC |
| | 3360 | 3370 | 3380 | 3390 | 3400 | 3410 | 3420 | |
| | | | | | | | 3760 | |
| Hum | | TGC | | | | GTGGAGGAGAC | ACCGAGTGCTC | TG |
| | mamaan na | ::: maamaaaaa | CTCCT CT CT | arararar | | | : ::::::::: | |
| WCI | | | 3450 | | | | AGCGAGTGCTC 3490 | AG |
| | | | | | 31.0 | 3100 | 3430 | |
| 37 | 70 3 | 780 | 3790 | 3800 | 3810 | 3820 | 3830 | |
| Hva | | • | | | | | ACCTGGCCGAG | |
| WCI | | | | | | | .::::::: .GCCTGGCAGAG | |
| 2001 | 3500 | | • • • • | 3530 | | * | 3560 | |
| | | | | | | | | |
| | 40 3 | | | | | 3890 | 3900 | |
| TVA | <i>t</i> : | | | GTGGCTCTGC ::::: | | | TTEGTTTGGEC | |
| (1//.) | | | | | | | AGCATTTGGCC | |
| | 3570 | | 3590 | | 3610 | 3620 | 3630 | - |
| 12 | | | | | | | | |
| | 10 3 | | | | | 3960 ^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 3970 ATGGGACTGTCA | CC |
| i (Au | | | | | | | .::::::: | |
| " WCI | GGAAATGG | GAGCATCTG | GCTGGACGA | GGTGCAGTGC | GGGGGCCGGG: | AGTCCTCCCTG | TGGGACTGTGT | TG |
| ₩ ₩ 5 | 3640 | 3650 | 3660 | 3670 | 3680 | 3690 | 3700 | |
| , | 80 3 | 990 | 4000 | 4010 | 4020 | 4030 | 4040 | |
| Hum | | | | | | | CTGGACAG | TC |
| ţī. | | | | | | | | |
| .WCI | | TGGGGGCAG 3720 | | | | | CTGGTGTAAGG | AC |
| | 3/10 | 3720 | 3/30 | 3740 | 3750 | 3760 | 3770 | |
| , = | | | | 4 | | 4080 | 4090 | |
| Hum | G | CTGAAATCA | CTGAATG | CCTC | CTCAGGT-CA | TTTAGCA- | CTTATTTTATC | CA |
| | . :.• .:: ልእሮእሞሞርር | : : :: :: CCACGACCA | CAGCAGGGA | ::. | ::::: :. CTCXXXTTCT | : :::: | :::::::::::::::::::::::::::::::::::::: | : . 'Cm |
| wci | 3780 | | | 3810 | | 3830 | 3840 | |
| | | | | | | | | |
| <i>(</i>) | | | | | | | 414 | |
| Hum | | -TATCTT | TGGGCTC | -CTTCTC | CTGGTTCT | | PATTCTATTTCI | CA |
| WCI | | | | | | | ACTCAGCTACT | |
| | 3850 | 3860 | | • | | 3900 | 3910 | |
| | | 150 | | 14150 | | | | |
| مد . ابدا | | | 4160 AGAAACAAA | | ·. | 4180 CTCA | ፯ ል ር፡ሞሞ – – – – – | |
| FIVM | | | | | | :: :. | | |
| WCI | GATGGAGA | GCAGAGCGC | AGAGCCTTA | TCCAGCTATG | | | TGTATGAGGAG | CT |
| | 3920 | 3930 | 3940 | 3950 | 3960 | 3970 | 3980 | |

Fig. 2P

| Hum | | | 4200 4200 434664666 | _ | | 4220 -AGGAGAATTTATTCCATGA | | | | | |
|----------------------|---------|------------|---------------------------|------------|---|------------------------------|----------------|--|--|--|--|
| 110.01 | | :: | | | | | | | | | |
| WCI | | | | | | | CCCTGATGAAAAT | | | | |
| 00 0 , | | | | | 4030 | | 4050 | | | | |
| | | | | | | | 1030 | | | | |
| | 4230 | • | 4: | 240 | | | 4250 | | | | |
| Hum | GATG | GAG | A | CCTG | CCTC | ! | -AAGAGAGAGGAC | | | | |
| Tion | | : | | :::: | :::: | • | :.::::: | | | | |
| WC | TATGATG | ATGCTGAAGA | AGTACCAGTG | CCTGGAACTC | CTTCTCCCTC | | GAGGAGGAAGTGC | | | | |
| | 4060 | 4070 | 4080 | 4090 | 4100 | 4110 | 4120 | | | | |
| | 4260 | 4270 | | 4280 | | 42 | 290 | | | | |
| م الله | CCACATG | GGACAAGAAC | | CTCAGA- | TGACACC | | ·CCAA | | | | |
| וויטח | :: :: . | | | ::::: | .:.:::::::::::::::::::::::::::::::::::: | : | :::. | | | | |
| Wa | | | | | | | CCAGAGAGGCAGC | | | | |
| ** • | 4130 | 4140 | 4150 | 4160 | 4170 | 4180 | 4190 | | | | |
| | | 4300 | 431 | 0 | | 4320 | 4330 | | | | |
| Hum | CCA | TGGTT GTG | \AGATG | CTAGCGACAC | ! | ATCG0 | TGTTGGGAGTT | | | | |
| | | | | | | | ::: :. ::.: | | | | |
| WCI | | | | | | AAGGGGATG | CTGGGTATGATGAT | | | | |
| | 4200 | 4210 | 4220 | 4230 | 4240 | 4250 | 4260 | | | | |
| `. ⊒ <u>. ∐</u> | • | • | | | | | | | | | |
| 1, U | | 4340 | | 4350 | | | | | | | |
| HUM | . CTT | CCTC | 3CC' | TCTGAAGCCA | CAAAA | | | | | | |
| 14 | :: | | : :: | | | | | | | | |
| ₩C1 | | TCAGTGCCCT | | | TCTCG | | | | | | |
| 1411 . ≒ | 4270 | 4280 | 4290 | 4300 | | | | | | | |
| '1 ==i 11 | | | | | | • | | | | | |
| 13 | | | | | | | | | | | |
| 1,7 | | | | 20 | | | | | | | |
| i, 1 | | | riq | . 2Q | | • | | | | | |
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Fig. 3A

L P A L G M Α GTCGACCCACGCGTCCGGTCTGTGGCTGAGC ATG GCC CTC CCA GCC CTG GGC CTG GAC CCC TGG AGC F F Q L L Q L L L Ρ Т 32 CTC CTG GGC CTT TTC CTC TTC CAA CTG CTT CAG CTG CTG CTG CCG ACG ACG ACC GCG GGG 127 ₽ Ρ R V R Y Y Α G D E R 52 GGA GGC GGG CAG GGG CCC ATG CCC AGG GTC AGA TAC TAT GCA GGG GAT GAA CGT AGG GCA 187 K G D F D 72 L Q CTT AGC TTC TTC CAC CAG AAG GGC CTC CAG GAT TTT GAC ACT CTG CTC CTG AGT GGT GAT 247 G Α R E Α I. L Α $\mathbf{r} \cdot \mathbf{p}$ 92 GGA AAT ACT CTC TAC GTG GGG GCT CGA GAA GCC ATT CTG GCC TTG GAT ATC CAG GAT CCA 307 Ε P R L K N М I Ρ W Ρ Α S D R K K 112 GGG GTC CCC AGG CTA AAG AAC ATG ATA CCG TGG CCA GCC AGT GAC AGA AAA AAG AGT GAA V S Ε T Q С F N F I R 132 K K N TGT GCC TTT AAG AAG AAG AGC AAT GAG ACA CAG TGT TTC AAC TTC ATC CGT GTC CTG GTT 427 T С F 152 т H L Y G T F Α S TAC AAT GTC ACC CAT CTC TAC ACC TGC GGC ACC TTC GCC TTC AGC CCT GCT TGT ACC 487 I S D S Y L L P E D TTC ATT GAA CTT CAA GAT TCC TAC CTG TTG CCC ATC TCG GAG GAC AAG GTC ATG GAG GGA 547 I,f P \mathbf{T} 192 Α Η K Н Α GGC CAA AGC CCC TTT GAC CCC GCT CAC AAG CAT ACG GCT GTC TTG GTG GAT GGG ATG 607 s 212 Y G Т М N N F L G S Ε P Ι L M R TAT TCT GGT ACT ATG AAC AAC TTC CTG GGC AGT GAG CCC ATC CTG ATG CGC ACA CTG 232 L K T D N F L R W L Η Η GGÃ TCC CAG CCT GTC CTC AAG ACC GAC AAC TTC CTC CGC TGG CTG CAT CAT GAC GCC TCC 727 P S Т Q V V Y F 252 Α Τ F F TTT GTG GCA GCC ATC CCT TCG ACC CAG GTC GTC TAC TTC TTC GAG GAG ACA GCC AGC 787 272 Н T S V R V С F R L R Α GAG TTT GAC TTC TTT GAG AGG CTC CAC ACA TCG CGG GTG GCT AGA GTC TGC AAG AAT GAC 847 292 E K L L 0 K K W T T F L K GTG GGC GGC GAA AAG CTG CTG CAG AAG AAG TGG ACC ACC TTC CTG AAG GCC CAG CTG CTC 907 312 P G Q L Ρ F N V I R H Α TGC ACC CAG CCG GGG CAG CTG CCC TTC AAC GTC ATC CGC CAC GCG GTC CTG CTC CCC GCC 332 Т Α P Н Ι Y Α V F Т S - Q Q GAT TCT CCC ACA GCT CCC CAC ATC TAC GCA GTC TTC ACC TCC CAG TGG CAG GTT GGC GGG 1027 C F S L D I E R Α L ACC AGG AGC TCT GCG GTT TGT GCC TTC TCT CTC TTG GAC ATT GAA CGT GTC TTT AAG GGG

Fig. 38

R W L K E Т S \mathbf{T} T Y R 372 AAA TAC AAA GAG TTG AAC AAA GAA ACT TCA CGC TGG ACT ACT TAT AGG GGC CCT GAG ACC 1147 C S V G P S G S S D K AAC CCC CGG CCA GGC AGT TGC TCA GTG GGC CCC TCC TCT GAT AAG GCC CTG ACC TTC ATG 1207 V F L M D Ε Q V G ${f T}$ P L L 412 AAG GAC CAT TTC CTG ATG GAT GAG CAA GTG GTG GGG ACG CCC CTG CTG GTG AAA TCT. GGC Α v Y L V E Т ·Q G L D G H S R Α Η 432 GTG GAG TAT ACA CGG CTT GCA GTG GAG ACA GCC CAG GGC CTT GAT GGG CAC AGC CAT CTT 1327 V s · L $G \cdot T$ \mathbf{T} ${f T}$ G S L H K A V 452 GTC ATG TAC CTG GGA ACC ACC ACA GGG TCG CTC CAC AAG GCT GTG GTA AGT GGG GAC AGC 1387 V R Ε Ε Ι Q L F PDPE P 472 AGT GCT CAT CTG GTG GAA GAG ATT CAG CTG TTC CCT GAC CCT GAA CCT GTT CGC AAC CTG 1447 T G V F V G F S G G V V 492 Α Q Α R CAG CTG GCC CCC ACC CAG GGT GCA GTG TTT GTA GGC TTC TCA GGA GGT GTC TGG AGG GTG 1507 С S V Y E S С V D С V 512 CCC CGA GCC AAC TGT AGT GTC TAT GAG AGC TGT GTG GAC TGT GTC CTT GCC CGG GAC CCC 1567 E S R \mathbf{T} С L С L S Α 532 CAY TGT GCC TGG GAC CCT GAG TCC CGA ACC TGT TGC CTC CTG TCT GCC CCC AAC CTG AAC 1627 D M E R G N P E W Α C A 552 TGG AAG CAG GAC ATG GAG CGG GGG AAC CCA GAG TGG GCA TGT GCC AGT GGC CCC ATG 1687 P 'Q R P S R Ι Ι K E -572 AGG AGC CTT CGG CCT CAG AGC CGC CCG CAA ATC ATT AAA GAA GTC CTG GCT GTC CCC 1747 N. L E L P С P Н L S S Y 592 Α L Α Y AAC TCC ATC CTG GAG CTC CCC TGC CCC CAC CTG TCA GCC TTG GCC TCT TAT TAT TGG AGT 1807 V P E Α S S Т V Y N G 612 CAT GGC CCA GCA GCA GTC CCA GAA GCC TCT TCC ACT GTC TAC AAT GGC TCC CTC TTG CTG 1867 V G G L Y Q C W 632 Α ATA GTG CAG GAT GGA GTT GGG GGT CTC TAC CAG TGC TGG GCA ACT GAG AAT GGC TTT TCA $\mathbf{A} \cdot \mathbf{D}$ V I S Y W S Q D \mathbf{T} 652 Q TAC CCT GTG ATC TCC TAC TGG GTG GAC AGC CAG GAC CAG ACC CTG GCC CTG GAT CCT GAA V V 672 R Ė H K P L R CTG GCA GGC ATC CCC CGG GAG CAT GTG AAG GTC CCG TTG ACC AGG GTC AGT GGT GGG GCC 2047 S Y W P H F V Т V T V 692 GCC CTG GCT GCC CAG CAG TCC TAC TGG CCC CAC TTT GTC ACT GTC ACT GTC CTC TTT GCC 712 G Α L I I L V Α S P - L R TTA GTG CTT TCA GGA GCC CTC ATC ATC CTC GTG GCC TCC CCA TTG AGA GCA CTC CGG GCT С \mathbf{T} 732 G Ε L R P G Ε K P CGG GGC AAG GTT CAG GGC TGT GAG ACC CTG CGC CCT GGG GAG AAG GCC CCG TTA AGC AGA

Fig. 30

Ε C R S 752 GAG CAA CAC CTC CAG TCT CCC AAG GAA TGC AGG ACC TCT GCC AGT GAT GTG GAC GCT GAC 762 AAC AAC TGC CTA GGC ACT GAG GTA GCT TAA 2317 2396 TGACAGCACACAAAAGACCACCTTTCTCCCCTGAGAGGAGCTTCTGCTACTCTGCATCACTGATGACACTCAGCAGGG 2475 ${\tt TGATGCACAGCAGTCTGCCTCCCCTATGGGACTCCCTTCTACCAAGCACATGAGCTCTCTAACAGGGTGGGGGCTACCC}$ 2554 CCAGACCTGCTCCTACACTGATATTGAAGAACCTGGAGAGGATCCTTCAGTTCTGGCCATTCCAGGACCCTCCAGAAA 2633 CACAGTGTTTCAAGAGATCCTAAAAAAACCTGCCTGTCCCAGGACCCTATGGTAATGAACACCAAACATCTAAACAATC 2712 ATATGCTAACATGCCACTCCTGGAAACTCCACTCTGAAGCTGCCGCTTTGGACACCAACACTCCCTTCTCCCAGGGTCA 2791 TGCAGGGATCTGCTCCTCCTGCTTCCCTTACCAGTCGTGCACCGCTGACTCCCAGGAAGTCTTTCCTGAAGTCTGACC 2870 ACCTTTCTTCTTCAGTTGGGGCAGACTCTGATCCCTTCTGCCCTGGCAGAATGGCAGGGGTAATCTGAGCCTTCT 2949 3028 3104

Fig. 3D

| | | | | • | | | |
|--------|-------------------|--------------------------------------|--------------------|--------------------|--------------------|-------------------|------------------|
| Hum. | | WSLLGLFLFQL | | 40 AGGGGQGPMP | 50 RVRYYAGDERR | 60 ALSFFHQKGL | 70 QDFDTLLLS |
| Mur. | | .:::: .:.:: SWSLLRVFFFQL 20 | | | | | |
| Hum. | 8 C GDGNTLYVGA |) 90 AREAILALDIQU | 100 PGVPRLKNMI | 110 PWPASDRKK | 120 SECAFKKKSNÉ | 130 TQCFNFIRVL | 140 VSYŅVTHLY |
| Mur. | | ARETVLALNIQN | | | | | |
| Hum | | ACTFIELQDSYL | | | | | |
| Muc. | | ACTFIELQDSLL | | GKGQSPLTLI 180 | | MLYSGTMNNF 200 | |
| Hra | | CONFLRWLHHDA | _ | • | | | _ |
| Mur. | | :: ::::: :: FDIFLRWLHADA D 230 | | | | | |
| Hua | | 300 QLLCTQPGQLPF | | | | | |
| Muc | | QLLCAQPGQLPF | | | | | |
| Hum. | | 370 ETSRWTTYRGPE | | | - | | |
| Mur. | | ETSRWTTYRGSE | | | | | |
| HUM. | | 0 440 SHLVMYLGTTTO | | | | | |
| Mur | | SHVVMYLGTST | | | | | |
| HUM. | | 0 510 YESCVDCVLARI | | | | | _ |
| Mur. | | YESCVDCVLARI | | | | NPEWVCTRGP | MARSPRRQS |
| Hum = | | 0 580 AVPNSILELPCI | | | | | |
| | PPQLIKEVL | TVPNSILELRCE 70 580 | PHLSALASYHV | VSHGRAKISE | ASATVYNGSLI | LLPQDGVGGL | YQCVATENG |
| Hum. | | 0 650 VDSQDQTLALDI | | /KVPLTRVSG | GAALAAQQSYV | | |
| Mur. 6 | YSYPVVSYW | VDSQDQPLALDI 40 650 | PELAGVPRER | VQVPLTRVG G | gasmaaqrsyv | VPHFLIVTVLL | AIVLLGVLT |
| Hum. | | LRARGKVQGCE | | | | | |
| Mur. 7 | LLLASPLGA | LRARGKVQGCG1 | ILPPREKAPLS | SRDQHLQPSK | DHRTSASDVD | ADNNHLGAEVA | |

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| | | 1 | | 31/ | 53 | | |
| F | ig. 36 | 9 | | - | | | • |
| • | · J | • | | | | | |
| Hum. | 1580 | 1590 | 1600 | 1610 | 1620 | 1630 | 1640 AAGCAGGACAT |
| Liner. | ::::::::: | :::.:: :: | ::: .::: | : ::::::: | : : .:::. | :: ;:: | ::::::::::: |
| Mur. | | | CTCTGCAGCC | | GCTC-TACCA 650 | AGCCTTGG 1660 | AAGCAGGACAT 1670 |
| | | | | | | | |
| HUM. | 1650 GGAGCGGGGG | 1660 AACCCAGAGT | 1670 GGGCATGTGC | 1680 CAGTGGCCC | 1690 CATGAGCAGO | 1700 AGCCTTCGGC | - 1710 CTCAGAGCCGC |
| • | :::.:: :: | ::::::::: | ::: ::: .: | : ::::::: | ::::. :::: | :::: | :::::::: |
| Mur | : GGAACGCGGC 1680 | AACCCGGAG1 | GGGTATGCAC 1700 | CCGTGGCCCC | 1720 | AGCCCCCGGC 1730 | GTCAGAGCCCC 1740 |
| | 1720 | 1730 | 1740 | 1750 | 1760 | 1770 | 1700 |
| HUM. | | | | | | | 1780 CCACCTGTCAG |
| Mur | :: ::: : : | | | | | | ::::::::: CCACCTGTCAG |
| | 1750 | 1760 | 1770 | 1780 | 1790 | 1800 | 1810 |
| | 1790 | 1800 | 1810 | 1820 | 1830 | 1840 | 1850 |
| Hum. | CCTTGGCCTC | TTATTATTGG | AGTCATGGCC | CAGCAGCAGT | rccagaago | CTCTTCCACT | GTCTACAATGG |
| Mur. | CACTGGCCTC | | | | | | :::::::::: GTCTACAATGG |
| • • • | 1820 | 1830 | 1840 | 1850 | 1860 | 1870 | 1880 |
| | 1860 | 1870 | 1880 | 1890 | 1900 | 1910 | 1920 |
| Hum. | CTCCCTCTTG | | | | | | AGAATGGCTTT :::: :::: |
| Mur. | CTCCCTCTTG | CTGCTGCCGC | AGGATGGTGT | CGGGGGCCT | CTACCAGTGT | GTGGCGACTG | AGAACGGCTAC |
| | 1890 | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 |
| | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 |
| HUM, | | | | | | | TGAACTGGCAG |
| Mur. | TCATACCCTG | TGGTCTCCTA | TTGGGTAGAC 1980 | AGCCAGGACO | CAGCCCCTGG | CGCTGGACCC 2010 | TGAGCTGGCGG 2020 |
| ٠ | | | | | | | |
| HUP. | 2000 GCATCCCCCG | 2010 GGAGCATGTG | 2020 AAGGTCCCGT | 2030 TGACCAGGG | | 2050 GGCCGCCCTG | 2060 GCTGCCCAGCA |
| | ::.: ::::: | :::::::: | ::::::: | ::::::::: | ::.:.:: :: | .:: :: :: | ::::::::: |
| Myr. | 2030 | 2040 | 2050 | 2060 | 2070 | AGCTTCCATG 2080 | GCTGCCCAGCG 2090 |
| | 2070 | 2080 | 2090 - | 2100 | 2110 | 2120 | 2130 |
| Hum. | GTCCTACTGG | CCCCACTTTC | TCACTGTCAC | TGTCCTCTT | IGCCTTAGT(| CTTTCAGGAG | CCCTCATCATC |
| Mur. | | | ::: :: TCATCGTTAC | | | | TGCTCACTCTC |
| • • • | 2100 | 2110 | 2120 | 2130 | 2140 | 2150 | 2160 |
| | 2140 | 2150 | 2160 | 2170 | 2180 | 2190 | 2200 |
| HUM. | CTCGTGGCCT | CCCCATTGAG | AGCACTCCGG | GCTCGGGGC2 | AAGGTTCAGG | GCTGTGAGAC | CCTGCGCCCTG |
| Mur. | CTCCTCGCTT | CCCCACTGGG | GGCGCTGCGG | GCTCGGGGT | AAGGTTCAGG | GCTGTGGGAT | GCTGCCCCCA |
| | 2170 | 2180 | 2190 | 2200 | 2210 | 2220 | 2230 |
| ω. | 2210 | 2220 | <u>2</u> 230 | 2240 | 2250 | 2260 | 2270 |
| Hum. | | | | | | | TCTGCCAGTGA |
| Mar. | GGGAAAAGGC 2240 | TCCACTGAGO 2250 | AGGGACCAGC 2260 | ACCTCCAGCO 2270 | CCTCCAAGGA 2280 | ACCACAGGACC 2290 | TCTGCCAGTGA 2300 |
| | | | • | 2270 | 2200 | | 2300 |
| Hum. | 2280 TGTGGACGCT | 2290 GACAACAACT | 2300 GCCTAGGCAC | 2310 TGAGGTAGC' | 2320 PTAAACTCT2 | 2330 AGGCACAGG-C | 2340 CGGGGCTGC |
| • | ::.:: :: | ::::::: | . ::.:::: | ::.::: | :::::: | | :: ::::: : |
| Mvr. | CGTAGATGCC 2310 | GACAACAACO 2320 | ATCTGGGCGC 2330 | CGAAGTGGC1 2340 | TTAAACA-G0 2350 | GACACAGATC 2360 | CGCAGCTGAGC 2370 |
| | | | • | | | | |
| Hum. | 2350 GGTGCAGGCA | 2360 CCTGGCCATO | 2370 CTGGCTGGGC | 2380 GGCCCAAGC | | | 2410 AGCAGCACAAA |
| Mur | | | | | | | TGCCACTCT |
| ***** | 2380 | 2390 | 2400 | 241 | | | 2420 |
| | - | | | | • | | |

| | ~ | | | | • | | | • |
|--------|--------------------|-------------------------|--|--|---|---|---------------------|--------------------|
| LI.co | 242 | | 30 2 | 440 CTTCTGCTA | | 2460 | | |
| | AGACCACC | rrerecee | GAGAGGAG. | CTTCTGCTAC ::::: GCT-CT-C | : ::::. | CTGATGAC | ACTUAGCAG | GGTGATGC : |
| Mur. | -GACCA | 24 | GGTAGGAG 130 | GCT-CT-(2440 | C-CTGCTA-7 24! | | AC-CTACAG 2460 | С |
| | 249 | າ າຄ | | 2510. | | | | 2550 |
| Hum. | ACAGCAGT | CTG-CCTCCC | CTATGGGA | CTCCCTTCT | ACCAAGCAC | ATGAGCTCTC | | |
| Mur. | ACC-CAGT | : :::::: AGGTCCTCCC | :::::::::::::::::::::::::::::::::::::: | ::: :::: CTCTCTTCT(| .: :::::: GC-AAGCACA | : : ATT | | ::::: GGGCT |
| | 2470 | | 2490 | . 2500 | 25 | | | |
| | | 60 25 | 70 | 2580 | 2590 | 2600 | 2610 | |
| Hum. | i: ::: | ::::: .: : | :::. | A-TTGAAGAZ : ::::: | | :::: ::: . | | :::. |
| Mur. | GTCTCCATE | ACCTGTACTI 2530 | GTGCTGTG | ACAGGAAGAC 2550 | CCAGAC-AC | GTTTCTTTC | SATTTTGAT | TGACCCAA 580 |
| 20 | | | • | 2650 | | | | |
| Hya. | GGACCCT-C | CCAGAAACAC | A-GTGTTT | CAAGAGATCO | TAAAAAAAT | 2670 CCTGCCTGTC | CCAGGACC | CTATGGTA |
| Mur. | GAGCCCTG | ::::::: CCTGTAACAA | : ::: : ACGTGCTC | :::::::::::::::::::::::::::::::::::::: | ATGAAAGG | ::::::: GTGGCTGTC | : ::: T-GGGATT | :::::: CTGTGGTG |
| | 2590 | 2600 | 2610 | | 263 | | 640 | 2650 |
| | 2690 | | | 2720 | | | | 2750 |
| Hum. | : .::: : | ::.::: . | | PATGCTAA-C | ::: :. | | | :::::::: |
| Mur. | ACAAAC-C | PAAGCATCCG | AGCAAGCT | GGGGCTATTC | CTGCAAACT | CCATCCTGA | ACGCTGTC. 2710 | ACTCTAGA 2720 |
| | | 2760 | | 2780 | | | | |
| HUM. | | CCGCTTTGGA | CACCAACA | CTCCCTTCT- | CCCAGG-G | CATGCAGGG | ATCTGCTC | |
| Mur. | AGCAGCTG | : ::::::: CTGCTTTGAA | CACCAGCC | CACCCTCCTI | CCCAAGAG | ::. CTCTATGGA | .::::: LGTTGGC-C | ::: :: CCTTGTGT |
| · | 2730 | 2740 | 275 | 50 27 | 60 2 | 2770 | 2780 | 2790 |
| M.m. | 2820 | 2830 | 2840 | 2850 CTCCCAGGAA | 286 | 50 28 | 370 | 2880 |
| ••• | :::: :::: | ::::::: :: | .:::. | : .:::: | ::::::::::::::::::::::::::::::::::::::: | | :::::: | :::::: |
| Mur. | 2800 | CAGTCGGGC 281 | CATACTGT. 0 | PTGGGAA 2820 | GTCATCTCT 2830 | GAAGTCTAA 2840 | CCACCTTC: 2850 | CTTCTTGG |
| | 2890 | 2900 | 2910 | 2 | 920 | 2930 | 2940 | 295.0 |
| Hum. | | | TGATCCCT- | TCTGCCC:::::: | | | | |
| Mur. | TTCAGTTTC | GACAGATTG | TTATTATT | STCTCTGCCC | TGGCTAGA | ATGGGGGCAT | AATCTGAG | CCTTGTTC |
| 2 | 860 2 | 2870 | 2880 | 2890 | 2900 | 2910 | 2920 | |
| Hum | 2960 ACTCCTTT |) \CCCTAG | 2970 CTGACCCC | 2980 PTCACCTCTC | 2990 CCCCTC | 3000 שביים איייייייייייייייייייייייייייייייייי | , 30: | 10 GATTCAGA |
| mvr. | :::: | .:: :.: | ::::::: | :: :::::: | :: ::::: | | | ::::::: |
| privr. | 2930 | 2940 | 2950 | TGACCTCTT 2960 | | 2970 | 2980 | 2990 |
| | 3020 | 3030 | 3040 | 3050 | 3060 | 3070 | 30 | 80 |
| Hum. | AAACTGCT | PGTCAGAGAC | TGTTTATT | 4AATTATTTT ::::::::: | AATATAAGG | CTTAAAAAA | | AAAAAAA :.:.:.: |
| Mur. | AAACTGCTT | TGTCACAGAC | AATTTATT | AAATTATTT T | | | | AGATATAA |
| | 3000 | | .u 3(| 020 . | | | 303 | U |
| Hum | 3090 , AAAAAAAA | | • | | | | | |
| | GCTTTAAAC | : | | | | | | |
| | 3040 | , | | | | | | |
| | | | | | | | | |

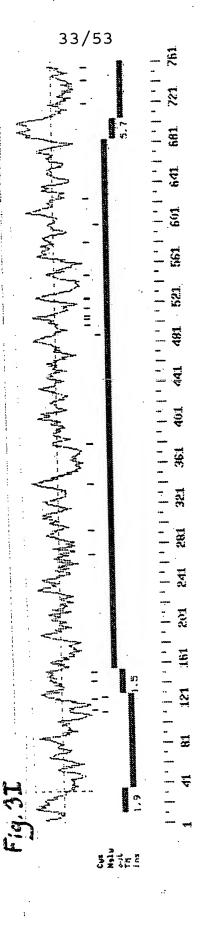


Fig. 4A

GTCGACCCACGCGTCCGCGGGGCGGGGGCCGAGTC 79

| GCGZ | AAGCO | GCGC | CTGC | SACC | CGGC | STCC | GGCC | GCGC' | rggao | GAGG | ACGC | GAGG? | AGCC | M ATG | R AGG | R - CGC | Q CAG | P CCT | A GCG | 6 152 |
|------------------------|----------|----------|----------|---------------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|---------------|----------|----------|----------|------------|
| K AAG | V GTG | A GCG | A GCG | L CTG | L CTG | L CTC | G GGG | L CTG | L CTC | L TTG | E GAG | C TGC | T ACA | E GAA | A GCC | K AAA | K AAG | H CAT | C TGC | 26 212 |
| W TGG | Y TAT | F TTC | E GAA | G GGA | L CTC | Y TAT | P CCA | T ACC | Y TAT | Y TAT | I ATA | C TGC | R CGC | S TCC | Y TAC | E GAG | D GAC | C TGC | C TGT | 46 272 |
| G GGC | S TCC | R AGG | C TGC | C TGT | V GTG | R CGG | A GCC | L CTC | S TCC | I ATA | Q CAG | R AGG | L CTG | W TGG | Y TAC | F TTC | W TGG | F TTC | L CTT | 66 332 |
| L CTG | M ATG | M ATG | G GGC | V GTG | L CTT | F TTC | C TGC | C TGC | G GGA | A GCC | G GGC | F TTC | F TTC | I ATC | R CGG | R AGG | R CGC | M ATG | Y TAC | 86 392 |
| CCC .b. | P CCG | P CCG | L CTG | I ATC | E GAG | E GAG | P CCA | .A GCC | F TTC | N AAT | V GTG | S TCC | Y TAC | T ACC | R AGG | Q CAG | P | P CCA | N AAT | 106 452 |
| P | GGC | P CCA | G GGA | A GCC | Q CAG | Q CAG | P CCG | G GGG | P CCG | P | Y TAT | Y TAC | T ACT | D GAC | P CCA | G GGA | G GGA | P CCG | G GGG | 126 512 |
| ¦.] ,↓ M ,¦ATG | N AAC | P CCT | V GTC | G GGG | N AAT | S TCC | M ATG | A GCA | M ATG | A GCT | F TTC | Q CAG | V GTC | P CCA | P | N AAC | S TCA | P CCC | Q CAG | 146 572 |
| .⊎ G ⊦≟GGG | S AGT | V GTG | A GCC | C TGC | P CCG | P | P CCT | P CCA | A GCC | Y TAC | C TGC | N AAC | T ACG | P CCT | P CCG | P CCC | P CCG | Y TAC | E GAA | 166 632 |
| Q CAG | V GTA | V GTG | K AAG | A GCC | K AAG | * TAG | | 73 53 | | , | | | | | | | | | | |
| TGGGG' | rgcc | CACG | rgcaz | AGAG | GAGA | GACA | GAG | AGGG | CCTT | rcce | rggc | CTTT | CTGT | CTTC | TTG/ | ATGT" | rcac: | rtcci | ∤G | 732 |
| Ġ <mark>a</mark> acg | GTCT | CGTG | GCT | GCTA | AGGG | CAGT' | rccro | CTGA: | ratco | CTCA | CAGC | AAGC | ACAGO | CTCT | CTTT | CAGG | CTTTC | CATO | 3G | 811 |
| AGTAC | AATA | ratg: | AACT | CACA | CTTT | GTCT | CTC | rgtt | GCTT(| CTGT | TTCT | GACG | CAGT | CTGT | GCTC' | rcac <i>i</i> | ATGG: | PAGTO | Ŧ | 890 |
| ĠĠŢĠĀ | CAGT | cccc | GAGG | GCTG | ACGT | CCTT | ACGG! | rggc | GTGA | CCAG | ATCT | ACAG | GAGA | GAGA | CTGA | GAGG2 | AAGA | AGGC | ∤G | 969 |
| TGCTG | GAGG' | rgca(| GGTG | GCAT | GTAG | AGGG | GCCA | GCC | GAGC | ATCC | CAGG | CAAG | CATC | CTTC | rgcc | eggg: | ratt? | AATA | 3G\ | 1048 |
| AAGCC | CCAT | GCCG | GCG | GCTC | AGCC | GATG | AAGC | AGCA | GCCG | ACTG | AGCT | GAGC | CCAG | CAGG' | rcat(| CTGC | rcca | CCT | TE. | 1127 |
| CCTCT | CGTC | AGCC' | TTCC | TCTT (| CCAG | AAGC' | rgtt | GGAG | AGAC | ATTC | AGGA | GAGA | GCAA | GCCC | CTTG | rcato | GTTT | CTGT | T | 1206 |
| CTGTT | CATA! | rcct | AAAG | ATAG | ACTT | CTCC | rgca | CCGC | CAGG | GAAG | GGTA | GCAC | GTGC | AGCT | CTCA | CCGC | AGGA' | rggg | €C | 1285 |
| CTAGA | ATCA | GGCT" | rgcc' | TTGG. | AGGC | CTGA | CAGT | GATC' | rgac: | ATCC | ACTA | AGCA | AATT! | ratt" | raaa' | PTCA: | rggg | YAAA | CA . | 1364 |
| CTTCC | TGCC | CCAA | ACTG | AGAC | ATTG | CATT | rtgt | GAGC' | CTT | GGTC' | TGAT | TTGG | AGAA | AGGA | CTGT" | TACC | CATT" | LLLL. | ĽĠ | 1443 |
| GTGTG | 'ATTT | TGGA | AGTG | CATG' | TAGA | GCGT | CCTG | CCCT' | TTGA. | AATC | AGAC' | TGGG' | rgrg: | IGTC' | rrcc | CTGG | ACAT | CACT | 3C . | 1522 |
| CTCTC | CAGG | GCAT" | TCTC | AGGC | CCGG | GGGT | CTCC' | TTCC | CTCA | GGCA | GCTC | CAGT | GGTG | GTT | CTGA | AGGG' | rgct' | rtca. | 4A | 1601 |
| ACGGG | GCAC. | ATCT | GGCT | GGGA | AGTC. | ACAT | GGAC' | TCTT | CCAG | GGAG | AGAG | ACCA | GCTG | AGGC | STCT | CTCT | CTGA | GGTT | ЭT | 1680 |

GTTGGGTCTAAGCGGGTGTGTGCTGGGCTCCAAGGAGGAGGAGCTTGCTGGGAAAAGACAGGAGAAGTACTGACTCAAC 1759 TGCACTGACCATGTTGTCATAATTAGAATAAAGAAGAAGTGGTCGGAAATGCACATTCCTGGATAGGAATCACAGCTCA 1838 CCCCAGGATCTCACAGGTAGTCTCCTGAGTAGTTGACGGCTAGCGGGGAGCTAGTTCCGCCGCATAGTTATAGTGTTGA 1917 TGTGTGAACGCTGACCTGTCCTGTGTGCTAAGAGCTATGCAGCTTAGCTGAGGCGCCTAGATTACTAGATGTGCTGTAT 1996 CACGGGGAATGAGGTGGGGTGCTTATTTTTAATGAACTAATCAGAGCCTCTTGAGAAATTGTTACTCATTGAACTGG 2075 AGCATCAAGACATCTCATGGAAGTGGATACGGAGTGATTTGGTGTCCATGCTTTTCACTCTGAGGACATTTAATCGGAG 2154 AACCTCCTGGGGAATTTTGTGGGAGACACTTGGGAACAAAACAGACACCCTGGGAATGCAGTTGCAAGCACAGATGCTG 2233 CCACCAGTGTCTCTGACCACCCTGGTGTGACTGCTGACTGCCAGCGTGGTACCTCCCATGCTGCAGGCCTCCATCTAAA 2312 TGAGACAACAAGCACAATGTTCACTGTTTACAACCAAGACAACTGCGTGGGTCCAAACACTCCTCTTCCTCCAGGTCA 2391 -TTTGTTTTGCATTTTTAATGTCTTTATTTTTTGTAATGAAAAAGCACACTAAGCTGCCCCTGGAATCGGGTGCAGCTGA 2470 ATAGGCACCCAAÄAGTCCGTGACTAAATTTCGTTTGTCTTTTTGATAGCAAATTATGTTAAGAGACAGTGATGGCTAGG 25.49 2628 GAACGCTGATCCTGCATATGGAAGTCCCACTTTGGTGACATTTCCTGGCCATTCTTGTTTCCATTGTGTGGATGGTGGG 2707 \dagger 2786 ¢åGATCTGTGCATGCTTTTCCTCTGCAACAATTGGCTCGTTTCTCTTTTTTGTTCTCTTTTTGATAGGATCCTGTTTCCT 2865 2944 I- AAAAAAAAAGGGCGGCCGC 2964

Fig. 4B

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| GTCGACCCACGCGTCCGCGCGCGTCCTTCTGCCGGCTTCAGCTCGTATCCCCGGAGTCCACCCGCCCG | | | | | | | | | | | | | 79 | | | | | | | |
|--|--|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|------------|
| GCG | ${ m M}$ G R R L GCGGACTGGCCCTGAGCTGCTGGACGCTCCTCGCTGGAGCC ATG GGC CGC CTC | | | | | | | | | | | | | | 5 151 | | | | | |
| G GGC | R AGG | V GTG | | A GCG | L CTG | L CTG | L CTC | G GGG | | L CTA | | | C TGC | T ACT | E GAG | A GCC | K AAA | K AAA | H CAT | 25 211 |
| C TGC | W TGG | Y TAT | F TTT | E GAA | G GGA | L CTC | Y TAT | P CCC | T ACA | Y TAC | Y TAT | I ATA | C TGC | Ř CGT | S TCC | Y TAT | E GAA | D GAC | C TGC | 45 271 |
| ·C | G | S | R | С | С | v | R | A. | L | s | I | . Q | R | Ľ | W | Y | F | W | F | 65 |
| | | | | | | GTG | | | | | • | | | | | | | • • | TTC | 331 |
| L CTG | L CTG | | -M ATG | G GGT | V GTG | L CTG | F TTC | C TGC | C TGT | - | A GCC | G GGT | F TTC | F TTC | I ATT | R CGC | R CGG | R CGC | M ATG | 85 391 |
| Y TAT | P CCG | P CCA | P CCA | L CTC | I ATT | E GAG | E GAG | P CCC | T ACA | F TTC | N AAT | V GTG | S TCC | Y TAT | T ACC | R AGG | Q CAG | P CCA | P CCA | 105 451 |
| N AAT | P CCT | A GCT | P CCA | G GGA | A GCA | Q CAG | Q CAA | M ATG | | P CCG | | Y TAT | Y TAC | T ACC | D GAC | P CCT | G GGA | G GGA | P CCC | 125 511 |
| GGG | M ATG | N AAT | P CCT | V GTT | G GGC | N AAT | T ACC | M ATG | A GCT | M ATG | A GCT | F TTC | Q CAG | V GTC | Q CAG | P CCC | N AAT | S TCA | P CCT | 145 571 |
| н | G GGA | G GGC | T ACA | T ACT | Y TAC | P CCA | P CCC | P CCT | P CCT | S TCC | Y TAC | C TGC | N AAC | T ACG | P CCT | P CCA | P CCC | P CCC | Y TAT | 165 631 |
| E GAA | Q CAG | V GTG | V GTG | | D GAC | K AAG | * TAG | | | | | | | | | | | • | | 173 655 |
| CAA | SATG | CTAC | ATCA | AAGG | CAAA | GAGG | ATGG | ACAG | GCC' | rttt | GTTT | ACCT: | rccc2 | ATCC' | rcac(| CGAT | ACTT | GCTG/ | ATAG | 73.4 |
| GĢŢ(| GTC | CAAG | GGAA | AACT' | TGGA' | TATT | CTCA | AAGC | AAGC | CCAG | CTCT | CTTT | CAAG | rctt | rtgt | GGAG | GACA! | rttg/ | AATC | 813 |
| CAC | ACTG | rctc | CTCT | GTTG | CTTC | TGTT | rctg/ | ATGT | AGTC | rgrg | CTCTC | CTGA | GAGA | GTGT(| GGCA | ACAG' | rccc | rgag(| GTT | 892 |
| GAT | ATTC | CTAG | GGTG' | TCCA | GGGT | AGAT | CTC | GGA | GAGA | GGCT | AAGG | GGAA! | AGGA | AGGC. | ATAG | CCTG | rgtg: | PTAG(| GGGG | 971 |
| CAG | ATAA | AGTG | GTCA | GGCT | GAGA' | TAAG | ACTC | ACATO | GATG | CAGT | AGTTO | GGCA | GTGA | ACTT | CGAA | GAGA | CACT | ATCC | ACCA T | 1050 |
| TCC | CAGC | CCAT' | rctc(| CTAA' | TAGA | AGCT | STGG | GCT | STGT" | rgtt | GATG | CTCT! | rtgg: | rctc | CACT | CACA! | rttt | GAAA | ATAG | 1129 |
| GCT' | rtcc | rctg(| CAGG | AATA | GGAA | AGAC | CCAA | GTAC | ATAT! | rtgc: | rtcc | ACTT | AAAA | ATGA | GGT | CAGA | ACCA | GGCC | ICAG | 1208 |
| ŢŢĠ | GACA! | rcta' | ragt' | TAAA' | TAAA | GGCC | ATTA | GAGA | GGG2 | TAAA | CTTT | AAGT: | PAGG(| GGAA | ATTC' | rcta. | AATGO | GAGA | CATT | 128 |
| GCG' | r T TT | ATGA | ATCA' | TCGT | CTGG | CTTT | rctt | ľTAG′ | rgca: | TGTA: | rtga. | AGTG | AGGG' | rgrc | CTTT | GAGA! | rcag? | ATGG | GGAG | 1366 |
| AGT | GAAC' | rctg | CGGG | GGGT | GGGG' | TGTC | CTA | CTCAC | GAGG | GCTC | CAAC | ACCC! | rttt(| СТТА | GGTA | GTTC | rggt(| GATG | GTT | 1449 |
| TTA' | rggg | CACT | ATAG. | AGCT | GAGG | GGCA | CATT | AGGC | CGGG' | TAGT" | raca' | TTGA | CCT | TGGA | GAGG | AAGA | GGAC | AGCC | AAAG | 152 |

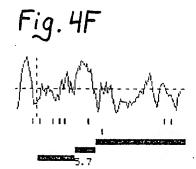
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Fig. 4D

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Fig. 4E

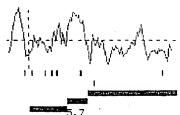
| | 10 | 20 | 30 | 40 | 50 | . 60 | · 70 | | | | | |
|------|----------------------------------|------------|---------------------------------------|---------------------|-------------|---|-----------------|--|--|--|--|--|
| Hum. | MRRQPAKVAAI | LLGLLLECTE | EAKKHCWYFE | GLYPTYYICRS | SYEDCCGSRCC | VRALSIQRLW | YFWFLLMMG | | | | | |
| • | | | | | | | • • • • • • • • | | | | | |
| Mur. | MGRRLGRVAAI | | | | | VRALSIQRLW | YFWFLLMMG | | | | | |
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | | | | |
| | | 0.0 | 100 | 110 | 100 | 120 | | | | | | |
| | 80 | 90 | 100 | 110 | 120 | 130 | 140 | | | | | |
| Hum. | VLFCCGAGFF] | | | | | PGGPGMNPVG | NSMAMAFQV | | | | | |
| | | | · · · · · · · · · · · · · · · · · · · | : : : : : : : : : : | • | ::::::::::::::::::::::::::::::::::::::: | | | | | | |
| Mur. | VLFCCGAGFF] | RRRMYPPPLI | EEPTFNVSY | PRQPPNPAPG <i>i</i> | | PGGPGMNPVG | NTMAMAFQV | | | | | |
| | . 80 | 90 | 100 | 110 | 120 | 130 | 140 | | | | | |
| | 150 | 160 | . 170 | | | • | | | | | | |
| 11 | , | | 170 | | | | _ | | | | | |
| Hum. | PPNSPQGSVACPPPPAYCNTPPPPYEQVVKAK | | | | | | | | | | | |
| . • | .:::: | | | | | | | | | | | |
| Mur. | QPNSPHGGTT\ | PPPPSYCMTE | PPPTEOVVKI | OK | | | | | | | | |
| • | 150 | 160 | 170 | | | | | | | | | |



1 41 81 121 161



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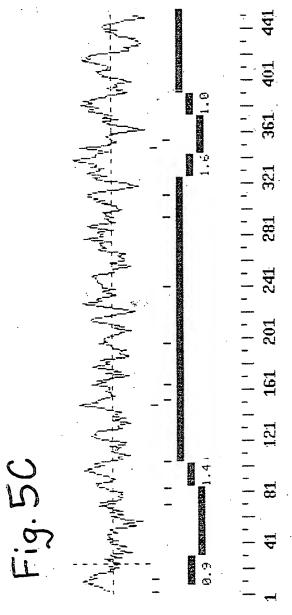


1 41 81 121 161

Fig.5A

GTCGACCCACGCGTCCGCAGCTTTGGACACTTCCTCTGCTTGAGGACACCTTGACTAACCTCCAAGGGCAACTAAAGGA 79 6 TCAAGAAAGCCCAGCACAGCAGAAGATCAGCTGGATCTAGCTCCTGCAGGAG ATG TGT ACA AAG ACA ATC 150 G С F L L W N L Y V S S 26 CCA GTC CTC TGG GGA TGT TTC CTC CTG TGG AAT CTC TAT GTC TCA TCC TCT CAG ACC ATT 210 G: Ι K R I Т 0 R D Α L Y ٠0 G 46 TAC CCT GGA ATC AAG GCA AGG ATT ACT CAG AGG GCA CTT GAC TAT GGT GTT CAA GCT GGA 270 K L P D L S M L K E K 66 ATG AAG ATG ATT GAG CAA ATG CTA AAA GAA AAG AAA CTC CCA GAT TTA AGC GGT TCT GAG 330 K V D Y V N Y ${\bf N} - \cdot {\bf F}$ S N Ι 86 TCT CTT GAA TTT CTA AAA GTT GAT TAT GTA AAC TAC AAT TTT TCA AAT ATA AAA ATC AGT 390 Α F S Ρ N T S ·L Α F V v G Ι K 106 GCC TTT TCA TTT CCA AAT ACC TCA TTG GCT TTT GTG CCT GGA GTG GGA ATC AAA GCG CTA 450 G Т I S \mathbf{T} D W G F E S P Α Ν V 126 ÄÇC AAC CAT GGC ACT GCC AAC ATC AGC ACA GAC TGG GGG TTC GAG TCT CCA CTT TTT GTT 510 L.E. Y N S F Ε P Ε K Ρ I L K Α M N 146 CTG TAT AAC TCC TTT GCT GAG CCC ATG GAG AAA CCC ATT TTA AAG AAC TTA AAT GAA ATG 570 S E V K Α Α Τ. N Α N Τ. S 166 CTC TGT CCC ATT ATT GCA AGT GAA GTC AAA GCG CTA AAT GCC AAC CTC AGC ACA CTG GAG 630 N Y L L D Y s L I 186 TTA ACC AAG ATT GAC AAC TAC ACT CTG CTG GAT TAC TCC CTA ATC AGT TCT CCA GAA 690 Ť Ε N Y D L N L K G V F Y P L Ε N L 206 ATT ACT GAG AAC TAC CTT GAC CTG AAC TTG AAG GGT GTA TTC TAC CCA CTG GAA AAC CTC 750 F S P V P F V L Ρ Ε R S N s L 226 M ACC GAC CCC CCC TTC TCA CCA GTT CCT TTT GTG CTC CCA GAA CGC AGC AAC TCC ATG CTC 810 А E Y F F K S 246 Α S F H G Α TAC ATT GGA ATC GCC GAG TAT TTC TTT AAA TCT GCG TCC TTT GCT CAT TTC ACA GCT GGG 870 S T - EE S Ι Η F V · Q N S . Q 266 N GTT TTC AAT CTC ACT CTC TCC ACC GAA GAG ATT TCC AAC CAT TTT GTT CAA AAC TCT CAA 930 S R Y 286 L Ι Α E I Ι L S 0 P M GGC CTT GGC AAC GTG CTC TCC CGG ATT GCA GAG ATC TAC ATC TTG TCC CAG CCC TTC ATG 990 Ι Ά Т E P P Ι G N F Т L 306 M Ι N Q ₽ L GTG AGG ATC ATG GCC ACA GAG CCT CCC ATA ATC AAT GTA CAA CCA GGC AAT TTC ACC CTG 1050 D Ι P Т Т Т Ι 326 Α S Т M M L Q P K N S V Ε GAC ATC CCT GCC TCC ATC ATG ATG CTC ACC CAA CCC AAG AAC TCC ACA GTT GAA ACC ATC 1110 M D S Т s V٠ Ι G Q ·R 346 ٠G

| GTT | TCC | ATG | GAC | TTC | GTT | GCT | AGT | ACC | AGT | GTT | GGC | CTG | GTT | ATT | TTG | GGA | CAA | AGA | CTG | 1170 |
|------------|-------------------|---------------|---------------|----------------|---------|----------|----------|---------------------|----------|----------|----------|-----------|----------|---------|----------|----------|----------------|-----------|--------------|--------------|
| V | С | S | Ĺ | s | L | N | R | F | R | L | Α | L | P | È | s | N | R | s | N | 366 |
| GTC | TGC | TCC | TTG | TCT | CTG. | AAC | AGA | TTC | CGC | CTT | GCT | TTG | CCA | GAG | TCC | AAT | CGC | AGC | AAC | 1230 |
| I | E | v | L | R | F | E | N | I | L | s | s | I | L | Н | F | G | V | L | P | 386 |
| АТТ | GAG | GTC | TTG | AGG | TTT | GAA | ААТ | ATT | CTA | | | | | | | | | _ | CCA | 1290 |
| L | Α | N | A | K | L | 0 | 0 | c | Er | ъ | | ъ | NT | Б | | ** | _ | | | |
| | | | GCA | | | Q CAG | Q CAA | G GGA | F TTT | P CCT | L CTG | P. CCC | | P | H | K AAA | F TTC | L ጥጥል | F TTC | 406 1350 |
| | | | | | | | | | | | | | | 00.1 | | | | 1111 | 110 | 1330 |
| V | N | S | D | I | E | V | L | E | G | F | L | L | I | S | T | D | L | K | Y | 426 |
| GTC | AAT | TCA | GAT | A'I"I' | GAA | GTT | CTT | GAG | GGT | TTC | CTT | TTG | ATT | TCC | ACC | GAC | CTG | AAG | TAT | 1410 |
| E. | T. | s | s | K | Q | Q | P | s | F | Н | V | w | E | . G | Ľ. | N | L | I | s | 446 |
| GAA | ACA | TCC | TCA | AAG | CAG | CAG | CCA | AGT | TTC | CAC | GTA | TGG | GAA | GGT | CTG | AAC | CTG | ATA | AGC | 1470 |
| R ? | 0 | W | R | G ['] | K | s | A | P | * | | | • | | | | | | . • | | 456 |
| | - | | AGG | | | | | - | | | | | | | | | • | | | 456 15.00 |
| | | | | | | | | | | | | | | | | | • | | | 13.00 |
| TTG | CCGG" | rttg(| CAAT | rcac(| CCCA | GAA(| STAAZ | ATGG? | CCT. | TAAT | CTA | CAAC | PACTO | S'I'ĀĀĀ | ACCCA | AGAA(| GGA/ | AGAC | CAGT | 1579 |
| AGA | CACTO | GAA | rtgt <i>i</i> | AAAG | CCT | rgtga | \ATTC | CTT | AGGCZ | AGAA | ላርብጣ | ուն-հու | ኮጥረጥባ | PAAGO | كىسىر | - AGG | ACC0 | י א בי אר | ልጥልል | 1658 |
| ; = | | | | | | | 1. | | | | | | | | | | | | | 1020 |
| GGC | AGAC | rctg | rtaa <i>i</i> | AGGG | AAATA | ATAG | AGGT | STCTO | TAAE | GTGA(| GTGT | ATGC | ATGC | rgcg: | rgtgt | rctg: | rg tt t | PATG | rttg | 1737 |
| THE | ፣ ጥጥጥር | ን ተ ብሊ | GGGG | CAAG | AAAG | ኒጥጥር | PAGG | מממ | :AGC | PAGG | ጉልጥር፣ | ኮልረጥባ | ייריים: | ACC AC | <u> </u> | ጋር ጥ አ ፣ | ACC N | \ CTICE | የአ አሮ | 1816 |
| ١,٠ | | | | | | | | | | | | | | 10011 | 30100 | JOIM | icen | 1C1C. | IAAG | 1010 |
| TOTY | TATE | rtgtz | ATTGO | GTCA! | rtcto | CAGTO | GAA! | ATCC | ATT | GCC | CTCT | AGTG | GTTT' | rccc | CTAC | CTGC | TAT | rggt" | TTTC | 1895 |
| I,I ATE | المستناما | ነጥ ፈጥ ሬ | rcac: | ኮርታውን | ልሮሞልባ | ኮርጥጥረ | יייבייי | ל עינונטעט <i>ב</i> | ላ ል ጥጥ ፣ | אממה | התילימים | րդու | ስ አ ጥር ነ | מתת | | | | | | 1974 |
| 12 | | | | .01.1 | 10 111. | | -1010 | 31 1 12 | W1112 | man. | IIGI. | 1110. | IAIC | www | ww | 7474747 | ww | TATAT. | عصصد | 19/4 |
| GGE | CGC | | | | | | | | | | | | | | | | | | | 1980 |
| ijΠ | | | | | | | | | | | | | | | | | | | | |
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Fig.5D

| 286 | | VLWGCF | L-LWNLYVS | SSQTIYPG | IKARITO | 40 RALDYGV | OAGMKMIEC | 60 MLKEKKLPI | DLSGSEST |
|-------------|--------------------------------------|---------------|------------------|------------------|----------------|----------------|--------------------------|-----------------------------|----------------|
| BPI | : . | : . | . : | : : | :::: | : : : . | : : SQQGTAALQK | | |
| Or 1 | | 10 | 20 | 30 | VVVISQ | 40 | 50 | 60 EPKKIKI M | MSDSF |
| 286 | 70 EFLKVDYV | 80 NYNFSN | IKISAFSFF | NTSLAFVP | GVGIKAL | TNHGTAN | 120 ISTDWGFES | PLFVLYNSE | AEPME |
| BPI | KIKHLGKG 70 | HYSFYSN 80 | MDTREEALE | CCOTCMITO | אווורו צבכ | て ごろけん あけてひ | :: : ISGKWKAQK 120 | THE PART OF THE | DLSIEGM |
| 286 | | | -KPI | | | | 14 | 0 LKN-LNEMI | 150 CPIIASE |
| | SISADLKL 140 | GSNPTSO | ::. SKPTITCSS | CSSHINSV | HVHISKS | KVGWI.TO | I.FHKKTESA | I.RNIKMNSOV | |
| 286 | VKA-LNAN | LSTLEVI | LTKIDNYTL | LDYSLISS | PEITENY | LDLNLKG | 00 VFYPLENLT | DPPFSPVPF | WI.PERSN |
| BPI L | VSSKLQPY | t FQTLPVM | TKIDSVAG 230 | INYGLVAP: | PATTAET | LDVOMKG | :: EFYSENHHN 260 | :::.: PPPFAPPVM 270 | EFPAAHD |
| | | 2 | 240 | 250 | 260 | | 270 | 280 | 290 |
| BPI | SMLYIGIA ::::: RMVYLGLS 280 | DYFFNTA | : : : | ::: VLKMTLRDI | . : OMIPKES | : KFRLTTK | .:. : FFGTFLPEV | : . AKKFP-NMK | : AZVHIQI |
| 2 86 | 30 TEPPIINL | QPGNFTI | JDIPASIMM | LTQPKNSTV | /ETIVSM | DFVASTS | 340 VGLVILGQR | LVCSLSLNR | FRLALPE |
| BP] | STPPHLSV | QPTGLTF | YPAVDVQA 370 | FAVLPNSSI | LASLFLI | GMHTTGS | | :: :::: LVGELKLDR 410 | LLLELKH |
| 286 | 37 SNRSNIEV | LRFENIL | SSILHFGV | LPLANAKL(| OGFPLP | NPHKFLF | 410 VNSDIEVLE | GELLISTOL | KYETSSK |
| BP | SNIGPFPV | ELLQDIM | NYIVPILV 440 | LPRVNEKL(|)KGFPLP | TPARVOL | YNVVLQPHQ 470 | NFLLFGADV | VYK |
| 286 | 44 QQPSFHVW | 0 EGLNLIS | 450 RQWRGKSA | P - | | | | | |
| | | <u> </u> | | | | | | | |

Fig. 5E

| 286 | MCTKTIPV | TU LWGCFLLWN | LYVSSSQTI | YPGIKAI | RITQRALD | YGVQAGMK | OU MIEQMLKE | KKLPDLSG | SESL |
|------|-----------------|------------------------------|-----------------------------|---------------------------|-----------------|----------------|----------------------|------------------------|-------------|
| RENP | : | PSILLAI 10 | : .: LLTSTPEAL 20 | ::. :: GANPGLVAI 30 | RITDKGLO 40 | YAAQEGLL | : ALQSELLR: 50 | :::: ITLPDFTG 60 | .: DL |
| 286 | . :. | 80 NYNFSNIKI :.:: | SAFSFPNTS | ::.:: | IKALTNHGʻ | TANISTDW | GFESPLFVI | : | .: |
| renp | 70 | RYEFHSLNI 80 | HEFQLPSSQ 90 | ISMVPNVGI _ 100 | LKFSISNAI 1: | NIKISGKW 10 | 120 | 130 | |
| 286 | | КЕ | | | | | | 150 LNEMLCPI | IASE |
| renp | SISADLKI 140 | GSNPTSGKE | PTITCSSCSS 160 | | | LIQLFHKK 80 | IESALRNK | | |
| 286 | | 170 LSTLEVLTE . :: :.: | CIDNYTLLDY | SLISSPEI' | | LKGVFYPL | ENLTDPPF | SPVPFVLP | ERSN |
| renp | VSSKLQPY 210 | FQTLPVMT | CIDSVAGINY 230 | GLVAPPAT 240 | raetldvo 2 | MKGEFYSE 50 | NHHNPPPF. | APPVMEFP 270 | AAHD |
| 286 | SMLYIGIZ | 24(AEYFFKSASI | PAHFTAGVFN | LTLSTEEI: | : ' | NSQGLGNV | :: . | ILSQPFMV | : |
| renp | RMVYLGLS 280 | DYFFNTAGI | JVYQEAGVLF 300 | MTLRDDMI 310 | PKESKFRL 3 | TTKFFGTF 20 | LPEVAKKF 330 | P-NMKIQI 340 | HVSA |
| 266 | TEPPIINI | LQPGNFTLD | 310 PASIMMLTO | 320 PKNSTVET | IVSMDFVA | STSVGLVI | LGQRLVCS | LSLNRFRL | 360 ALPE |
| RENP | STPPHLS | .:::. /QPTGLTFYI 360 | PAVDVQALAV | /LPNSSLAS | LFLIGMHT | TGSMEVSA | ESNRLVGE | LKLDRLLL | .: ELKH |
| 286 | | /LRFENILS | 880 SILHFGVLPI :. ::: | | FPLPNPHK | | EVLEGFLL | ISTDLKYE | |
| RENP | SNIGPFPV 420 | VELLQDIMN' | ZIVPILVLPI 440 | RVNEKLQKG | FPLPTPAR 0 | VQLYNVVI | QPHQNFLL | FGADVVYK 480 | (|
| 286 | | 40 Weglnlisk(| 150 OWRGKSAP - | | | | | | |
| | | | | | • | | | | |

Fig. 6A

GTCGACCCACGCGTCCGGGGAATTGCAGCAGGAAAATATGTGAAGAGTTTTTAAACCCACAAATTCTTCTTACTTTAGA M Ε ATTAGTTGTTACATTGGCAGGAAAAAATAAATGCAGATGTTGGACC ATG TTG GAA ACC TTG TCA AGA CAG 149 Η R М Ε М W L L Ι L V $A \cdot Y$ 28 TGG ATT GTC TCA CAC AGA ATG GAA ATG TGG CTT CTG ATT CTG GTG GCG TAT ATG TTC CAG 209 S Н М Ρ Т K Ρ Α V D 48 AGA AAT GTG AAT TCA GTA CAT ATG CCA ACT AAA GCT GTG GAC CCA GAA GCA TTC ATG AAT 269 Η , Q G Y С Р Ε E Y Ε 68 ATT AGT GAA ATC ATC CAA CAT CAA GGC TAT CCC TGT GAG GAA TAT GAA GTC GCA ACT GAA 329 S N R P Ι R G L P V K 88 GAT GGG TAT ATC CTT TCT GTT AAC AGG ATT CCT CGA GGC CTA GTG CAA CCT AAG AAG ACA 389 Ρ V V L L Q Η L G V G G S Α N W Ι 108 GGT TCC AGG CCT GTG GTG TTA CTG CAG CAT GGC CTA GTT GGA GGT GCT AGC AAC TGG ATT 449 .g N S L G F I Τ. Α D Α G F D 128 TO AAC CTG CCC AAC AAT AGC CTG GGC TTC ATT CTG GCA GAT GCT GGT TTT GAC GTG TGG 509 M R K Н K 148 ATG GGG AAC AGC AGG GGA AAC GCC TGG TCT CGA AAA CAC AAG ACA CTC TCC ATA GAC CAA 569 F s Y. Α D Ε Α R F D L 168 Α I GAG TTC TGG GCT TTC AGT TAT GAT GAG ATG GCT AGG TTT GAC CTT CCT GCA GTG ATA 629 Q K Т G Q Ē K I Y Y V G Y 188 TTT ATT TTG CAG AAA ACG GGC CAG GAA AAG ATC TAT TAT GTC GGC TAT TCA CAG GGC 689 Æ \mathbf{F} Ι F Α S т P M Ε L Α Q K 208 Ι ACC ACC ATG GGC TTT ATT GCA TTT TCC ACC ATG CCA GAG CTG GCT CAG AAA ATC AAA ATG 749 P I \mathbf{T} A. V K Н Α K S р G 228 TAT TTT GCT TTA GCA CCC ATA GCC ACT GTT AAG CAT GCA AAA AGC CCC GGG ACC AAA TTT I K G L F G K Ε 248 TTG TTG CTG CCA GAT ATG ATG ATC AAG GGA TTG TTT GGC AAA AAA GAA TTT CTG TAT CAG 869 L R Q L V -I Y L C G 0 V Q 268 $\cdot \mathbf{I}$ L D Т ACC AGA TTT CTC AGA CAA CTT GTT ATT TAC CTT TGT GGC CAG GTG ATT CTT GAT CAG ATT 929 Ι М L Ļ L G G F N T N N M N M S R 288 TGT AGT AAT ATC ATG TTA CTT CTG GGT GGA TTC AAC ACC AAC AAT ATG AAC ATG AGC CGA 989 Y \mathbf{T} Н L Α G 0 Н 308 N Ι GCA AGT GTA TAT GCT GCC CAC ACT CTT GCT GGA ACA TCT GTG CAA AAT ATT CTA CAC TGG S Q v N S G Ε L R F D Α W G S E Т K 328 N AGC CAG GCA GTG AAT TCT GGT GAA CTC CGG GCA TTT GAC TGG GGG AGT GAG ACC AAA 1109 K C R Y R ٧ R T P 348 D M V

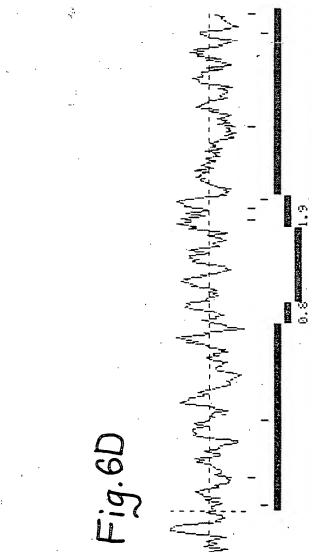
| GAA | AAA | TGC | AAT | CAG | CCA | ACT | CCT | GTA | AGG | TAC | AGA | GTC | AGA | GAT | ATG | ACG | GTC | CCT | 1169 |
|----------|---|--|--|--|--|---|--|---|---|---|---|---|--|---|---|--|---|---|---|
| A GCA | M ATG | W TGG | T ACA | | | Q CAG | D GAC | W TGG | L CTT | S TCA | ·N AAT | P CCA | E GAA | D GAC | V GTG | K AAA | M ATG | L CTG | 368 1229 |
| S TCT | E GAG | V GTG | T ACC | N AAC | L CTC | I ATC | | | K AAG | N AAT | I ATT | P CCT | E GAA | W TGG | A GCT | H CAC | V GTG | D GAT | 388 1289 |
| I ATC | W TGĢ | _ | _ | D GAT | A GCT | P CCT | H CAC | R CGT | M ATG | Y TAC | N AAT | E GAA | I ATC | I ATC | H CAT | L CTG | M ATG | Q CAG | 408 1349 |
| E GAG | | | | L CTT | S TCC | Q CAG | G GGA | R CGG | C TGT | E GAG | A GCC | V GTA | L TTG | * TGA | | | | | 424 1397 |
| TCTC | ACAC | TGAC | GATO | TTAC | GACA | LACC ₁ | CCTO | SAGGO | SATGO | GGC1 | 'AGG | ACCCA | ATGAZ | AGGCA | \GAA1 | TACC | GAGA | GCA · | 1476 |
| CCTA | AGTAI | PACAT | PTTT | 'CAGA | TTCC | CTGC | ACTI | GGC | CTAA | ATCC | GACA | CŤTA | CATT | TACA | TTTI | T TTT T | CTGI | AAA | 1555 |
| AGTA | CTTA | TTAC | GTAA | ATAG | AGGT | TTTG | TATO | CTAT | TATA | LTAT! | CTAC | CATO | TTGA | AGGG | TAGO | TTTT | 'ACCT | GAT | 1634 |
| AGAA | ATAA. | TCTA | GACA | TTCI | CTAT | ATCA | TTCA | GGTA | AATC | TCTI | TAAA | ACAC | CTAT | TGTI | TTTT | CTAI | 'AAGC | CAT | 1713 |
| | | | | | | | | | | | | | | | | | | | 1792 |
| ATAA | GCTA | GACA | TTTT | CACC | TTGT | TGCC | ACAG | AGAC | ATAA | CACI | ACCI | CAGG | AAGC | TGAG | CTGC | TTTA | AGGA | CAA | 1871 |
| AACA | LAAA | CAGI | GTTA | CAGI | 'ATGG | ATGA | AATC | TATG | TTAA | GCAT | TÇTC | AGAA | TAAG | GCCA | AGTT | TTAT | AGTT | GCA | 1950 |
| AGGG | AAGA | LAAAT | ATTT. | TAGG | ATGT | TATT | 'GAG'I | TCTC | CAAT | 'AAA' | GCAI | TCTG | CATI | 'ACAT | 'AAAA | AAAA | AAAA | AAA | 2029 |
| AGGG | CGGC | CGC | | | | | | | | | | | | | | | | | 2044 |
| | A GCA S TCT I ATC E GAG ATCTC ACCTA AGTA AGAA CAGGGGGGGGGGG | A M GCA ATG S E TCT GAG I W ATC TGG E E GAG GAG ATCTGACAC ACCTAGTAT AGTACTTA CAGAAAATA TTGGAGCA ATAAGCTA CAACAAAAT | A M W GCA ATG TGG S E V TCT GAG GTG I W G ATC TGG GGT E E T GAG GAG ACC ATCTGACACTGAC ACCTAGTATACAT AGTACTTATTAG CAGAAAATATCTA TTGGAGCACTAA ATAAGCTAGACA | A M W T GCA ATG TGG ACA S E V T TCT GAG GTG ACC I W G L ATC TGG GGT TTG E E T N GAG GAG ACC AAC ATCTGACACTGACGATC ACCTAGTATACATTTTT AGTACTTATTAGGTAA TTGGAGCACTAAAGTA ATAAGCTAGACATTTTT AACAAAATCAGTGTTA AGGGAAGAAATTTTA | A M W T G GCA ATG TGG ACA GGA S E V T N TCT GAG GTG ACC AAC I W G L D ATC TGG GGT TTG GAT E E T N L GAG GAG ACC AAC CTT ATCTGACACTGACGATCTTAG ACCTAGTATACATTTTCAGA AGTACTTATTAGGTAAATAG TTGGAGCACTAAAGTAAAAT ATAAGCTAGACATTTTCACC CAACAAAATCAGTGTTACAGT AGGGAAGAAAATTTTATAGG | A M W T G G GCA ATG TGG ACA GGA GGT S E V T N L TCT GAG GTG ACC AAC CTC I W G L D A ATC TGG GGT TTG GAT GCT E E T N L S GAG GAG ACC AAC CTT TCC ATCTGACACTGACGATCTTAGGACA CCTAGTATACATTTTTCAGATTCC AGTACTTATTAGGTAAATAGAGGT CAGAAAATATCTAGACATTCTCTAT CTTGGAGCACTAAAGTAAAATGGCA ATAAGCTAGACATTTTCACCTTGT CAACAAAATCAGTGTTACAGTATGG CAGGGAAGAAAATTTTTAAGGATGT | A M W T G G Q GCA ATG TGG ACA GGA GGT CAG S E V T N L I TCT GAG GTG ACC AAC CTC ATC I W G L D A P ATC TGG GGT TTG GAT GCT CCT E E T N L S Q GAG GAG ACC AAC CTT TCC CAG ATCTGACACTGACGATCTTAGGACAACCT ACCTAGTATACATTTTTCAGATTCCCTGC AGTACTTATTAGGTAAATAGAGGTTTTG AGAAAATATCTAGACATTCTCTATATCA ATAAGCTAGACATTTTCACCTTGTTGCC CAACAAAATCAGTGTTACAGTATGGATGA CAGGGAAGAAAATTTTATAGGATGTTTAT | A M W T G G Q D GCA ATG TGG ACA GGA GGT CAG GAC S E V T N L I Y TCT GAG GTG ACC AAC CTC ATC TAC I W G L D A P H ATC TGG GGT TTG GAT GCT CCT CAC E E T N L S Q G GAG GAG ACC AAC CTT TCC CAG GGA ATCTGACACTGACGATCTTAGGACAACCTCCTC ACCTAGTATACATTTTCAGATTCCCTGCACTT AGTACTTATTAGGTAAATAGAGGTTTTGTATC ATGGAGCACTAAAGTAAAATGGCAAATTGGGA ATAAGCTAGACATTTTCACCTTGTTGCCACAG ATAAGCTAGACATTTTCACCTTGTTGCCACAG AACAAAATCAGTGTTACAGTATGGATGAAATC | A M W T G G Q D W GCA ATG TGG ACA GGA GGT CAG GAC TGG S E V T N L I Y H TCT GAG GTG ACC AAC CTC ATC TAC CAT I W G L D A P H R ATC TGG GGT TTG GAT GCT CCT CAC CGT E E T N L S Q G R GAG GAG ACC AAC CTT TCC CAG GGA CGG ATCTGACACTGACGATCTTAGGACAACCTCCTGAGGG ACCTAGTATACATTTTCAGATTCCCTGCACTTGGCA CAGAAAATATCTAGGACAATCTCTATATCATTCAGGTA TTGGAGCACTAAAGTAAAATGGCAAATTGGGACAGA ATAAGCTAGACATTTTCACCTTGTTGCCACAGAGAC CAACAAAATCAGTGTTACAGTATGGATGAAATCTATG | A M W T G G Q D W L GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT S E V T N L I Y H K TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG I W G L D A P H R M ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG E E T N L S Q G R C GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT ATCTGACACTGACGATCTTAGGACAACCTCCTGAGGGATGC CCTAGTATACATTTTTCAGATTCCCTGCACTTGGCACTAA AGTACTTATTAGGTAAATAGAGGTTTTGTATGCTATTATA CAGAAAATATCTAGACATTCTCTATATCATTCAGGTAAATC TTGGAGCACTAAAGTAAAATGGCAAATTGGGACAGATATT ATAAGCTAGACATTTTCACCTTGTTGCCACAGAGACATAA CAACAAAATCAGTGTTACAGTATGGATGAAATCTATGTTAA | A M W T G G Q D W L S GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA S E V T N L I Y H K N TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT I W G L D A P H R M Y ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC E E T N L S Q G R C E GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG ATCTGACACTGACGATCTTAGGACAACCTCCTGAGGGATGGGGCT CCTAGTATACATTTTCAGATTCCCTGCACTTGGCACTAAATCC AGTACTTATTAGGTAAATAGAGGTTTTTGTATGCTATTATATATT CTTGGAGCACTAAAGTAAAATGGCAAATTCGGACAGAAATCTCTT CTTGGAGCACTAAAGTAAAATGGCAAATTGGGACAGATATTGAGG ATAAGCTAGACATTTTCACCTTGTTGCCACAGAGACATAACACT CAACAAAATCAGTGTTACAGTATGGATGAAATCTTTTTAGGCACTAAATCACTTGGGACACATAACACT CAACAAAATCAGTGTTACAGTATGGATGAAATCTATGTTAAGCAT | A M W T G G Q D W L S N GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT S E V T N L I Y H K N I TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT I W G L D A P H R M Y N ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT E E T N L S Q G R C E A GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC CTCTGACACTGACGATCTTAGGACAACCTCCTGAGGGATGGGGCTAGGA CCCTAGTATACATTTTTCAGATTCCCTGCACTTGGCACTAAATCCGACA AGGTACTTATTAGGTAAATAGAGGTTTTGTATGCTATTATATATTCTAC CAGAAAATATCTAGACATTCTCTATATCATTCAGGTAAATCTCTTTAAA TTGGAGCACTAAAGTAAAATGGCAAATTGGGACAGATATTGAGGTCTG ATAAGCTAGACATTTTCACCTTGTTGCCACAGAGACATAACACTACCT CAACAAAAATCAGTGTTACAGTATGGATGAAATCTATTTAAGCATTCTC CAACAAAAATCAGTGTTACAGTATGGATGAAATCTATGTTAAGCATTCTC CAACAAAAATCAGTGTTACAGTATGGATGAAATCTATGTTAAGCATTCTC CAGGGAAGAAAATTTTTATAGGATGTTTATGAGTTCTCCAATAAATGCAT | A M W T G G Q D W L S N P GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA S E V T N L I Y H K N I P TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT I W G L D A P H R M Y N E ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA GAG GAG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA GAGACACCTCCTGAGGGATGGGGCTAGGACCCA CCTAGTATACATTTTTCAGATTCCCTGCACTTGGCACTAAATCCGACACTTA CAGTACTTATTATATATTTCTACCATC CAGAAAAATATCTAGGACAATCTCTTATATATATTCTACCATC CAGAAAAATATCTAGGACATTCTCTATATCATTCAGGTAAATCTCTTTAAAACAC CTTGGGAGCACTAAATCTAGACATTTTCAGGACAATTTGGGACAGATATTGAGGTCTGGAGTAAATCTCTTTAAAAACAC CTTGGGAGCACTAAAATCAGGACATTTTCACCTTGTTGCCACAGAGACATAACACTACCTCAGGAAAAAAAA | A M W T G G Q D W L S N P E GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA S E V T N L I Y H K N I P E T TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA ATC TGG GGT TTG GAT CCT CAC CGT ATG TAC AAT GAA ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA ATC TGG GGT TTG GAT CCT CAC CGT ATG TAC AAT GAA ATC CAG GAG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TAC AAT GAA ATC CAG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TCCTGACACTGACGATCTTAGGACAACCTCCTGAGGGATGGGGCTAGGACCCATGAA CCCTAGTATACATTTTAGGTAAATAGAGGTTTTGTATGCTATTATATATTTCTACCATCTTGACACTTATATATA | A M W T G G Q D W L S N P E D GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA GAC S E V T N L I Y H K N I P E W TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG ATC TGG GGT TTG GAG GGT TTG GAT TGG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG I W G L D A P H R M Y N E I I ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA ATC ATC ATC AGG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TGA CACCTGACACTTACATCTTACACCTGACACTTACATCTTACACCTGACACTTACATCTTACACCTGACACTTACATCTTACACCTTACTTA | A M W T G G Q D W L S N P E D V GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA GAC GTG S E V T N L I Y H K N I P E W A TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG GCT I W G L D A P H R M Y N E I I H ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA ATC ATC CAT GAG GAG GAC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TAC AAT GAA ATC ATC CAT CAT CAG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TGA CAT TGAC AAT GAA ATC ATC CAT CAT CAG GAG GAG CACTACATTTTCAGACACTGACACTTAGGACAACCTCCTGAGGGATGGGGCTAGGACCCATGAAGGCAGAAT CCTAGTATACATTTTCAGATTCCCTGCACTTGGCACTAAATCCGACACTTACATTTTCAGTATATATA | A M W T G G Q D W L S N P E D V K GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA GAC GTG AAA S E V T N L I Y H K N I P E W A H TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG GCT CAC I W G L D A P H R M Y N E I I H L ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA ATC ATC CAT CTG E E T N L S Q G R C E A V L * GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TGA ACCTAGTATACATTTTCAGATCCCTGCACTTGGCACTAAATCCGACACTTACATTTACATTTTTTT AGTACTTATAGGTAAATAGAGGTTTTGTATGCTATATATA | A M W T G G Q D W L S N P E D V K M GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA GAC GTG AAA ATG S E V T N L I Y H K N I P E W A H V TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG GCT CAC GTG ATG TGG GTT TTG GAT TTG GAT GTG GTT TTG AAT GAA ATC ATC CAT CTG ATG TAC AAT GAA ATC ATC CAT CTG ATG TG GAG GAG ACC AAC CTC CAC CGT ATG TAC AAT GAA ATC ATC CAT CTG ATG ATG TAC AAT GAA ATC ATC CAT CTG ATG TG GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TGA E E T N L S Q G R C E A V L * CCTAGTATACATTTTTCAGATCCCTGCACTTGGCACTAAATCCGACACTTACATTTACATTTTTTTT | GCA ATG TGG ACA GGA GGT CAG GAC TGG CTT TCA AAT CCA GAA GAC GTG AAA ATG CTG S E V T N L I Y H K N I P E W A H V D TCT GAG GTG ACC AAC CTC ATC TAC CAT AAG AAT ATT CCT GAA TGG GCT CAC GTG GAT I W G L D A P H R M Y N E I I H L M Q ATC TGG GGT TTG GAT GCT CCT CAC CGT ATG TAC AAT GAA ATC ATC CAT CTG ATG CAG E E T N L S Q G R C E A V L * GAG GAG ACC AAC CTT TCC CAG GGA CGG TGT GAG GCC GTA TTG TGA ACCTAGTATACATTTTCAGATTCCCTGCACTTGGCACTAAATCCGACACTTACATTTACATTTTTTTT |

Fig. 6B

Fig.60

XX.

| 294 | MLETLSRO | 10 OWIVSHRM | 20 EMWLLILVAY | | | 50 EAFMNISEIIQH | | 70 VATEDG |
|--------------------------------|---|--------------------------------|---|---|---|--|---|---------------------------|
| HLP | : M | -: -WLLL | : :::: TMASLISVLG 10 | TTHGLFGKI 20 | .: .: LHPGSP | EVTMNISQMITY 0 40 | ::: :::: WGYPNEEYEY | VVTEDG |
| | ::: ::: | :::: IPYGKKNS | KKTGSRPVVI | LQHGLVGGA :::::: LQHGLLASA | ASNWISNLPN : . : : : : : : : : : ATNWISNLPN | 120 NSLGFILADAGE ::::::::: NSLAFILADAGY 0 110 | FDVWMGNSRGI /DVWLGNSRGI | NAWSRK |
| 299 HLP | HKTLSIDO : : : : NLYYSPD: | QDEFWAFS :::::: SVEFWAFS | YDEMARFDLE | PAVINFILQI :.:::: PATIDFIVKI | KTGQEKIYYV ::::: :: | 190 GYSQGTTMGF17 : ::::::::::::::::::::::::::::::::::: | AFSTMPELAQI | KIKMYF .:: RIKTFY |
| HLP | ALAPIATY :::::: ALAPVATY 200 | :: .:: VKYTKSLI 210 | .:: NKLRFVPQSI 220 | IIKGLFGKKI .: .:: FKFIFGDK 230 | EFLYQTRFLR : :. :. IF-YPHNFFD 0 2 | Q-LVIYLCGQVI :::: QFLATEVCSREN 40 250 | ILDQICSNIMI ILDQICSNIMI ILNLLCSNALI ILNLLCSNALI ILNLLCSNALI | :: FIICGF O |
| 』 2: ≟ 2 94 □ HLP | NTNNMNM: :: DSKNFNT: | SRASVYAA :: .:: | HTLAGTSVQN : : : : : : : : HNPAGTSVQN | IILHWSQAVI ::::: IMFHWTQAVI | NSGELRAFDW .:::.: KSGKFQAYDW | 330 GSETKNLEKCNO :: .: .: GSPVQNRMHYDO 10 320 | OPTPVRYRVRI : : : : OSQPPYYNVTI | OMTVPI .:.:. AMNVPI |
| 294 | 50 AMWTGGQI :.:.:. AVWNGGKI 340 | DWLSNPED | VKMLLSEVTN : .::. : VGLLLPKLPN | ILIYHKNIPI ::::::: ILIYHKEIPI | EWAHVDFIWG | 400 LDAPHRMYNEII .::: .::: MDAPQEVYNDIV 80 390 | THLMQQEETNI /SMISEDKK- | LSQGRO |
| 294 | 20 EAVL | | | | | | | · |



Cus Nolu out TH ins

Fig. 6E

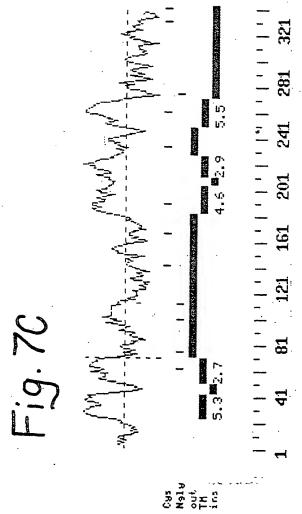
| | | | 20 | | | | 60 | |
|--------|----------|-----------|-------------|-----------|-----------------------|------------|---------------------|----------|
| 294 | MLETLSRQ | | | | | | QGYPCEEYEVAT | |
| | . : | : | : :: | • .••: | : ::::: | ::.:::: | ::: ::: ::: | : |
| LAL | M | KIV | | | | | WGFPSEEYLVET | E |
| | | | 10 | 20 | 30 | 40 | 50 | |
| • | • | • | * | | | | | |
| | | | | | 110 | | | |
| 294 | DGYILSVN | RIPRGLVQI | KKTGSRPVVL | LQHGLVGGA | SNWISNLPNNS | LGFILADAGF | DVWMGNSRGNAW | S |
| . 4. | | | | | | | :::::::::: | |
| LAI | | RIPHGRKNE | ISDKGPKPVVF | LQHGLLADS | SNWVTNLANSS | LGFILADAGF | DVWMGNSRGNTW | S |
| | 60 | 70 | 80 | . 90 | 100 | 110 | 120 | |
| | | | | • | | | | |
| | | | | | 180 | | 200 | |
| 194 | | | | | | | FSTMPELAQKIK | |
| | | | | | | | :: .::::.:: | |
| LAL | | | | | | | FSQIPELAKRIK | M |
| | 130 | 140 | 150 | 160 | 170 | 180 | 190 | |
| | | | | | | | | |
| A 411 | 210 | 220 | 230 | 240 | 250 | 260 | 270 | |
| 299 | YFALAPIA | TVKHAKSPO | FTKFLLLPDMM | IKGLFGKKE | FLYQTRFLRQL | VIYLCGQVII | DQICSNIMLLLG | G |
| | | | | | | | :.:. | |
| LAL | | | | | | | KELCGNLCFLLC | G |
| | 200 | 210 | 220 | 230 | 240 | 250 | 260 | |
| | 280 | 200 | 300 | . 210 | 320 | 330 | 340 | |
| 201 | | | | | | | 340 TPVRYRVRDMTV | . |
| 244 | | | | | | | · : :.:::: | |
| 1 A) | | | | | | | YPPTYNVKDMLV | |
| LAL | | 280 | | . — | QKFQAFDWGSS 310 | 320 | 330 | P |
| | 270 | 200 | 250 | | 310 | 320 | 330 | |
| | 350 | 360 | 370 | 380 | 390 | 400 | 410 | |
| 294 | | | | | | | LMQQEETNLSQG | R |
| - / -/ | | | | | . : . : : : : : : : : | | | |
| LAL | | | | | | | ILMRKYQ | _ |
| | | 350 | | | 380 | 390 | - | |
| | - | | <u>-</u> | | | | | |
| | 420 | | | | | | | |
| 2 94 | CEAVL | | _ | | | | | |
| • | | | • | | | | | |
| 1 1 | | | | | | | | |

Fig. 7A

| GTCG | ACCO | CACGO | GTCC | ACGC | CGAC | GGC1 | CCCG | GGGC | GCAG | CATI | GCCC | CCCC | CTGC | ACCAC | CTCA | CCA | | I A | | 2 75 |
|--------------|------|----------|--------|------|------|------|------|------|------|------|------|------|------|-------|------|-----|---------|-----|------|---------|
| | | | | | | | F | | | | | | | | | | | | | 22 |
| ACT | TTG | GGA | CAC | ACA | TTC | CCC | TTC | TAT | GCT | GGC | CCC | AAG | CCA | ACC | TTC | CCG | ATG | GAC | ACC | 135 |
| T | L | A | s | I | I | M | I | F | L | т | Α | L | A | т | F | I | v | I | L | 42 |
| ACT | TTG | GCC | AGC | ATC | ATC | ATG | ATC | TTT | CTG | ACT | GCA | CTG | GCC | ACG | TTC | ATC | GTC | ATC | CTG | 195 |
| P | G | I | R | G | ĸ | т | R | L | F | W | L | L | R | v | v | T | s | L | F | 62 |
| | | | | | | | AGG | | | | | | | | | | AGC | TTA | - | 255 |
| I | G | A | Α | I | L | Α | v | N | F | s | S. | E | W | s | v | G | '. O | V | s | 82 |
| | | | | | | | GTG | | | | | | | | | | | | | 315 |
| т | N | Tr. | s S | Y | ĸ | Ά | F | S | S | E | . M | I | S | A | D | I | G | L | Q | 102 |
| _ | | | | | | | TTC | | | | | | | | | | | | _ | 375 |
| v | G | L | G | G | 77 | N | I | т | Τ. | T. | G | Tr. | P | W | 0 | Q | L | N | E. | 122 |
| | | | | | | | ATC | | | | | | | | - | - | | | | 435 |
| T | I | N | Y | N | E | E | F | T | W | R | L | G | E | N | Y | Α | E | E | С | 142 |
| ACC | ATC | AAT | TAC | AAC | GAG | GAG | TTC | ACC | TGG | CGC | CTG | GGT | GAG | AAC | TAT | GCT | GAG | GAG | TGT | 495 |
| | K | | L | E | ĸ | | L | | | | | | | | Α | E | K | F | T | 162 |
| GCA | AAG | GCT | CTG | GAG | AAG | GGG | CTG | CCA | GAC | CCT | GTG | TTG | TAC | CTA | GCT | GAG | AAG | TTC | ACT | 555 |
| P | | | | | | | Y | | | | | | | | | Y | T | s | A | 182 |
| CCA | AGA | AGC | CCA | TGT | GGC | CTA | TAC | CGC | CAG | TAC | CGC | CTG | GCG. | GGA | CAC | TAC | ACC | TCA | GCC | 615 |
| M | L | W | v | Α | F | ·L | С | W | L | L | Α | N | v | M | L | s | M | P. | V | 202 |
| ÀTG | CTA | TGG | GTG | GCA | TTC | CTC | TGC | TGG | CTG | CTG | GCC | AAT | GTG | ATG | CTC | TCC | ATG | CCT | GTG | 675 |
| : <u>=</u> L | | Y | G | G | Y | M | L | L | | T | | I | F | Q | L | L | A | L | L | 222 |
| = | GTA | TAT | GGT | GGC | TAC | ATG | CTA | TTG | GCC | ACG | GGC | ATC | TTC | CAG | CTG | TTG | GCT | CTG | CTC | 735 |
| F | F | s | M | A | | - | L | | | _ | - | | | | L | | A | s | V | 242 |
| TTC | TTC | TCC | ATG | GCC | ACA | TCA | CTC | AÇC | TCA | CCC | TGT | CCC | CTG | CAC | CTG | GGC | GCT | TCT | GTG | 795 |
| Li | Н | т | H | H | G | P | A | F | W | ·ı | T | L | т | T | G | L | L | С | v | 262 |
| CTG | CAT | ACT | CAC | CAT | GGG | CCT | GCC | TTC | TGG | ATC | ACA | TTG | ACC | ACA | GGA | CTG | CTG | TGT | GTG- | 855 |
| | | | | | | | v | | | | | | P | | | | K | A | F | 282 |
| CTG | CTG | GGC | CTG | GCT | ATG | GCG | GTG | GCC | CAC | AGG | ATG | CAG | CCT | CAC | AGG | CTG | AAG | GCT | TTC | 915 |
| F | N | Q | s | V | D | E | D | P | М | L | E | W | s | P | E | E | G | G | L | 302 |
| TTC | AAC | CAG | AGT | GTG | GAT | GAA | GAC | CCC | ATG | CTG | GAG | TGG | AGT | CCT | GAG | GAA | GGT | GGA | CTC | 975 |
| | | | | | | | M | | | | | | | | | | | | s | |
| CTG | AGC | CCC | CGC | TÀC | CGG | TCC | ATG | GCT | GAC | AGT | CCC | AAG | TCC | CAG | GAC | ATT | CCC | CTG | TCA | 1035 |
| | | s | | | | | Y. | | | | | | | | | P | D | С | Α | 342 |
| GAG | GCT | TCC | TCC | ACC | AAG | GCA | TAC | TGT | AAG | GAG | GCA | CAC | CCC | AAA | GAT | CCT | GAT | TGT | GCT | 1099 |

| TTA TAA | 344 · 1101 |
|---|---------------|
| CATTCCTCCCCGTGGAGGCCACCTGGACTTCCAGTCTGGCTCCAAACCTCATTGGCGCCCCATAAAACCAGCAGAACTG | 1180 |
| CCCTCAGGGTGGCTGTTACCAGACACCCAGCACCAATCTACAGACGGAGTAGAAAAAGGAGGCTCTATATACTGATGTT | 1259 |
| AAAAAACAAAACAAAAAAAGCCCTAAGGGACTGAAGAGATGCTGGGCCTGTCCATAAAGCCTGTTGCCATGATAAG | 1338 |
| GCCAAGCAGGGGCTAGCTTATCTGCACAGCAACCCAGCCTTTCCGTGCTGCCTTGCCTCTTCAAGATGCTATTCACTGA | 1417 |
| AACCTAACTTCACCCCCATAACACCAGCAGGGTGGGGGTTACATATGATTCTCCTATGGTTTCCTCTCATCCCTCGGCA | 1496 |
| CCTCTTGTTTTCCTTTTTCCTGGGTTCCTTTTGTTCTTCCTTTACTTCTCCAGCTTGTGTGGCCTTTTGGTACAATGAA | 1575 |
| AGACAGCACTGGAAAGGAGGGGAAACCAAACTTCTCATCCTAGGTCTAACATTAACCAACTATGCCACATTCTCTTTGA | 1654 |
| GCTTCAGTTCCCAAATTTGCTACATAAGATTGCAAGACTTGCCAAGAATCTTGGGATTTATCTTTCTATGCCTTGCTGA | 1733 |
| CACCTACCTTGGCCCTCAAACACCCCCCCACAAGAAGCCAGGTGGGAAGTTAGGGAATCAACTCCAAAACGCTATTCCT | 1812 |
| TCCCACCCACTCAGCTGGGCTAGCTGAGTGGCATCCAGGACGGGGGGGG | 1891 |
| CETCCCCTGGGGTGGTTCAGAAAGATGCTAGCTCTGGTAGGGTCCCTCCGGCCTCACTAGAGGGCGCCCCTATTACTC | 1970 |
| TEGAGTCGACGCAGAGAATCAGGTTTCACAGCACTGCGGAGAGTGTACTAGGCTGTCTCCAGCCCAGCGAAGCTCATGA | 2049 |
| GÉACGTGCGACCCCGGCGCGAGAAGCCATGAAAATTAATGGGAAAAACAGTTTTTAAAAAAAA | 2128 |
| GCCC | 2133 |
| | |

Fig. 7B



HEREAL BY BY THE REAL BRIDES NO THE STREET WE WITH THE REAL BRIDES

Fig. 7D

